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THE QUESTION BOX EDITOR will answer without charge suitable questions in regard to Tuberculosis, and will give information about sanatoria for the treatment of this disease. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," JOURNAL OF THE OUTDOOR LIFE, 289 Fourth Avenue, New York City.

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Journal of the
OUTDOOR LIFE

THE INFECTIOUSNESS OF TUBERCULOSIS

By HERMANN M. BIGGS, M.D., STATE COMMISSIONER OF HEALTH, ALBANY, N. Y.

Misleading information about medical matters is frequent in the popular press. Occasionally it is serious enough to require notice on the part of those best qualified publicly to correct errors in reference to well-established facts. A recent occurrence of this sort has been the publication and wide dissemination of an article purporting to show that tuberculosis is not infectious. By quoting part of a medical paper on the subject written by an eminent specialist, it was made to appear that he declared the disease non-infectious when in fact he laid stress on the danger to children while minimizing the same to adults. It is true that the conclusions were a protest against "phthisiophobia" on the part of adults, but in no wise could they be justly construed in the way mentioned.

Since the article has been widely circulated in districts where agitation is in progress for the erection of hospitals and sanatoria for the tuberculous, the result might be a serious handicap on a most worthy cause unless authoritatively corrected.

This can be done by well-informed persons, and it seems best to briefly set forth the views of sanitary specialists and research students in tuberculosis as to certain facts known today about infection in tuberculosis and its social aspects.

Sources of Infection

1. Tuberculosis is an infectious and communicable disease caused by the bacillus tuberculosis both of human and bovine origin.

2. The infection is derived in the very large majority of cases from the sputum discharged from "open" or ulcerating tubercles in the lungs.

3. A certain number of persons, chiefly infants, estimated variously from one to ten per cent of all cases, receive the infection from the milk of tuberculous cows.

4. A very few others may possibly obtain the infection from the urine and fecal discharges of consumptives or from the pus discharged from diseased glands, bones, joints or other parts of the body which are the seat of ulcerating tuberculosis.

5. In a few extremely rare instances the infection is conveyed through the blood of the mother to an unborn child, but the offspring seldom survive long.

6. No infection can be conveyed from tuberculosis of the "closed" or non-ulcerated variety, or after ulcerations are completely healed.

Modes of Infection.

By far the most frequent mode of infection is by inhalation; the second is by

swallowing, and the least common, by inoculation of a wound or abrasion.

1. The bacilli are inhaled most often in dust, but are more virulent when inhaled in the form of moist spray arising directly from the acts of coughing (with the mouth unprotected) or hawking, sneezing, loud talking, singing, or laughing. Quiet breathing carries no infection.

2. The bacilli may be swallowed with food which has been contaminated with infected hands or otherwise, and also with the milk, butter, and other dairy products derived from cows suffering from bovine tuberculosis.

3. Inoculation by the infection of cuts, scratches, or abrasions is not frequently observed.

Frequency and Susceptibility to Infection.

No age is exempt and no one is immune against tuberculosis infection, but differences in susceptibility exist at different ages and in different races and individuals. The negro and Indian, for example, are more susceptible than the white race. It is doubtful whether a special predisposition can be inherited. Any person of weak constitution may be considered "predisposed," though many such persons already have the infection in a latent form. Slight infections are very general among civilized races, as is shown by tuberculin tests made at different ages.

The frequency of infection increases rapidly from the first year until at the age of fifteen perhaps 75 per cent of the population show a positive reaction to tuberculin, although only a small proportion have signs of disease which can be detected by other means.

Latent Tuberculosis.

The conviction has gradually been strengthened that the first infections from tuberculosis often occur during infancy and childhood and that extreme care is required if this is to be avoided in tuberculous families. The growing child often gives no evidence of the presence of bacilli in the lungs or elsewhere, except by a reaction to a tuberculin test.

It is now generally believed that the first seat of disease is in the lymphatic glands where the bacilli may lie dormant many years. If the number and virulence of the bacilli are sufficiently great, disease may follow infection in a short time; otherwise complete healing may occur without the development of any recognizable symptoms of disease. It seems probable that many of those who develop the disease in adult life have carried the latent infection since childhood and have not received a new infection when symptoms of the disease appear.

It has also been found by experiment that it is difficult to re-infect an animal that has already been previously inoculated with tuberculosis. Hence, it is inferred that some degree of immunity may be thus produced that may serve to ward off bacilli which might find lodgment in an individual not previously infected. Therefore it will be understood how the mild infections, which are healed and present in most persons who have reached adult age, may, and presumably do, offer some protection against further limited invasions of the tubercle bacilli. While persons are in good health, the protection thus offered is an advantage, having some resemblance to vaccination, but only very limited in nature and not complete. Prolonged or intimate exposure, however, or exposure to a virulent type of tuberculosis may result in a new infection, even of those who have overcome a previous mild infection. It is, moreover, by no means certain that in debilitated conditions due to other diseases, to dissipation, or to bad environment, new infections may not occur. We know positively that the first childhood infection may under such circumstances break out anew and thus become a doubtful advantage, a real sword with two edges.

"Phthisiophobia."

Considering the natural and acquired resistance to infection which is unquestionably possessed by adults, much unreasonable fear, or "phthisiophobia," has prevailed in late years. The results of this have sometimes been deplorable neglect or persecution of consumptives. Because there is no precaution too great for the protection of the young and delicate, this does not justify healthy adults in exaggerated fears for their own safety. In view of the present wide distribution of the disease and lack of adequate means for segregation, some exposure to infection is practically unavoidable. The only safety therefore lies in promoting every worthy movement for human betterment, both of sanitary and a social character for the sick and the well. Meanwhile efforts should be redoubled instead of relaxed for the better isolation, humane care and intelligent treatment of consumptives.

In the judgment of those who have most experience in the study of the problem, no other measure for the prevention of infection compares in importance with the treatment of advanced tuberculous patients in hospitals and sanatoria. The duty of the public is to see that ample provision is made for those who need care, and that these institutions are well provided with all necessary facilities for the care of the sick and suitable occupations for those able to engage in them. They cannot fulfil their proper function if they are to be merely cheerless institutions for the dying.

The misrepresentation of the truths and advances in medical science, whether intentional or otherwise, must not be permitted to hamper this stupendous task which the world has entered upon—the control of the Great White Plague.

COLDS

BY PROFESSOR WILLIAM L. HOOPER, ACTING PRESIDENT OF TUFT'S COLLEGE, MASS.

EDITORIAL NOTE.

Professor Hooper's article summarizes well the argument for the bacterial origin of colds. We believe it to contain useful and valuable information for our readers. It evidences careful study of the subject and accurately represents our present knowledge as far as that can be based upon proven scientific facts. Nevertheless, it must be admitted that it is possible that further researches may show that, although bacterial infection is the main factor, other conditions may be predisposing causes and are therefore worthy of more consideration than Professor Hooper is inclined to give them.

Draughts, for example, have undoubtedly held an unwarranted place in popular experience as a cause of colds, but it is not at all certain that they may not play some part under certain conditions. For example, if a person is muscularly relaxed, as in sleep, or when under an anaesthetic, it might be that exposure to draught may, as is very generally believed, be a determining factor in the occurrence of infection of the respiratory tract. This might be explained by the assumption that the chilling and the lowered vaso-motor tone help to weaken the natural defenses of the body against infection. If this is true, the germs may be said to have caught the body off its guard. The same might be true of any conditions of lowered vitality, whether from fatigue, disease or similar causes.

In other words, in emphasizing the bacterial origin of colds, it is important to recognize the possible importance of other factors which may lower the resistance of the body to these bacteria. Professor Hooper has mentioned this point, but we fear that it may be lost effort in following his main argument. Especially do we wish to emphasize the fact that it has not been distinctly proven that exposure to cold or to draughts is totally a myth as a cause of colds, even though its importance undoubtedly has been much overestimated.

Since the dawn of history, the sick, the leprous, and the well have bathed in the holy Ganges, and drank its waters, and since the dawn of history Asiatic Cholera has radiated from that great Indian sewer, to travel as fast and as far as the methods of communication of the time might allow. Since early times, men and rats have dwelt under common roofs, and fleas have jumped from men to rats, and from rats to men, and for thirteen hundred years the bubonic plague occasionally has devastated Europe, sometimes causing the death of a third of its population. Smallpox was long one of the scourges of the world, carrying off 25 per cent of those afflicted, and generally disfiguring those who recovered.

Since the days of the Spanish Conquest, yellow fever has ravished tropical America. In the autumn of 1878 it visited the lower Mississippi Valley and caused five thousand deaths in the cities of New Orleans and Memphis alone, and over fifteen thousand more in the surrounding country. Since men began to build tight permanent habitations, they have died of consumption and pneumonia, and have suffered from colds and influenzas.

What have men done to combat these terrible scourges? When cholera has appeared in India they have hastened to purge themselves in the holy Ganges, and have died the faster. As late as 1878 eminent clergymen in this country proclaimed the yellow fever epidemic of the lower Mississippi Valley a visitation of God upon the people, for their sins and religious unbelief. Until recently, when colds, pneumonia and consumption appeared, we have cried cold and have attempted to seal ourselves more nearly hermetically within our dwellings.

What are the facts recently discovered and demonstrated by scientific workers concerning these diseases? The facts are these: They are all infectious diseases due to the attack upon the human body of spe-

cific micro-organisms. One gets cholera or typhoid fever by swallowing specific bacteria that have been discharged from the bowels of others suffering from the disease. One gets bubonic plague, yellow fever, the dreadful sleeping sickness, infantile paralysis, or malaria, by being inoculated with the specific germ of the disease, in each case through the bite of an insect. Thus one can only contract yellow fever by being bitten by a particular mosquito, the stegomyia, about ten days after it has bitten another person suffering from the disease. With no mosquitoes about, one may nurse a case of yellow fever, may sleep in bed with the patient, and may drink of his stools without danger of contracting the disease.

One contracts tuberculosis, pneumonia, diphtheria and influenza by inhaling active colonies of the specific bacteria given off by other patients in coughing or sneezing, or by inhaling the dried but not yet sterilized sputum of such patients. Thus, if we inhale colonies of the Bacillus Diphtheriae, we are likely to contract diphtheria. If we inhale colonies of the Bacillus Tuberculosis, we may contract consumption. If we inhale colonies of the Bacillus Influenzae, we may have the "grip." If we inhale any one of several other Pathogenic Bacteria, we are likely to contract what we call a cold. We are not likely to get these diseases in any other way. We cannot have the disease except through the attack of the specific organism.

But, you may say, if I sit in a draft or get my feet wet I take cold. My answer is that imagination plays strange tricks with us all.

Not long ago an Englishman subjected this draft superstition to a series of scientific tests. Among the tests were these: Several professional men known to be victims of the draft superstition were each several times invited into a room in which a window could be opened without noise and a draft could be produced at will When the attention of any one of these professional men was strongly held so that he did not perceive the draft no result followed. When the attention of the subject was allowed to wander so that the open window was noticed, generally the subject began to sneeze and complained of taking cold. In no case was there any indication of a cold the next day. Evidently no cold was contracted, for the run of a cold is at least several days.

The explanation is simple; just as the tears come to our eyes while reading a pathetic story, so the subject sneezed and blew his nose when he imagined he was catching cold. An even more remarkable instance occurred to me while preparing this paper. After my mind had been occupied for a long time with inflamed Schneiderian membranes and bacterial colonies, my nose began to run so that I wet a handkerchief in a few minutes. For a little while I really thought I was coming down with a bad cold; but all signs of it were gone in half an hour. It was only a phantom cold, the effect of mind on bodily functions.

On relating this to a friend, an eminent physician, he told me of a similar instance in his own recent experience. One evening an acquaintance consulted him on what appeared to be a diseased gland. My friend referred the sufferer to a noted surgeon and after the patient had departed went to bed still thinking of the case. In the night he woke with an uncomfortable feeling in the region of the gland, and was so much worse in the morning that he decided to consult the surgeon himself. The result of a most careful examination was that the surgeon pronounced my friend as sound as a nut and asked him if he had been talking with any one about disease of these glands. My friend acknowledged he had, and the trouble was explained.

If merely thinking about a cold may cause the nose to run, if an able physician who studies a disease may suffer temporary functional derangements imitating the disease, is it surprising that one who has been taught from infancy to fear a draft should display occasionally some of the symptoms of a cold when near an open window? While imagination can never break a leg or heal a broken bone, it is well known that it may give rise to very distressing symptoms, or on the other hand, may help greatly in sustaining the person attacked by real disease.

Now what are the facts concerning susceptibility to colds? As long as the weather allows us to keep our windows open we are nearly free from them. The teamster, the mail carrier, the chauffeur, suffer rarely; those who live in hot, close rooms suffer often. The motormen on our electric cars now suffer more from colds than before the introduction of the vestibule. The locomotive engineer is frozen by an icy blast on one side and half roasted on the other; yet, rarely has a cold. The trapper in the Canadian woods in winter is safe from colds and pneumonia while attending to his work, though often suffering acutely from exposure. Most striking of all is the fact that colds and pneumonia are unknown in the polar regions. One beats his sleeping bag until the ice inside is broken up and then crawls in to shiver for an hour before getting warm enough to sleep; one loses his toes by having them frozen, as did Admiral Peary in Greenland; one loses his life, as did Captain Scott on the Antarctic Continent; but one never catches cold, for none of the several bacilli that attack the membranes of the respiratory tract are found in the polar regions.

These bacilli trouble us here because we nurture them as tropical plants are nurtured

in greenhouses. Moreover we kiss the afflicted; we inhale the spray from their sneezing; we inhale the dried sputum from their expectorations. Some witty person has remarked: "They ought to have fine air in the country for the farmers shut up all the bad air in their bedrooms."

But, it may be asked, if colds are only contracted by inhaling the appropriate germ, why does not one sufferer in the sneezing stage of the disease infect all the occupants of a room, since all are likely to inhale the spray? The answer is that the germ, or rather a colony of the germs, must not only find lodgment upon the mucous membrane, it must find a way through that membrane into the vascular tissue beneath, and this it can only do by meansof some lesion in the membrane.

Since this part of the process of catching cold is very important and quite easy to understand, let us look into it with some care. The respiratory tract should begin, and does begin in the case of those who breathe properly, with the nasal vestibules, behind and above which lie the nasal fossae, lined with the Schneiderian membrane. This membrane is covered with millions of minute cilia, which are normally moist and in constant motion, like blades of grass in a gentle breeze. Furthermore, on each side are three projecting curved boney ridges, called turbinates, which are themselves covered with the cilialed membrane. These turbinates are what the mechanic would call baffle-plates, and are admirably adapted to break up the entering currents of air and allow the moist cilia to catch and retain any solid suspended particles. The excess secretions of the nose tend mechanically to wash away the dust and germs collected by the moist cilia and carry them toward the vestibules where in the state of nature they find their way to the ground, or in civilization to the pocket handkerchief. In cold out-of-door air, these secretions are stimulated by the tonic action of the cold air upon the vascular tissues of the nasal cavities and are furthermore augmented by moisture from the lungs deposited upon the cooled membrane by the moisture saturated exhaled air. Hence, a brisk walk in cold weather makes the nose run, and, if one has been exposed to infection, is an excellent safeguard against catching cold by insuring a pretty thorough washing of the nasal cavities.

And now we are prepared to explain a point that until recent years had puzzled pathologists. It has long been observed that persons living in hot houses are peculiarly liable to colds in winter weather, whereas the same room temperature in summer is perfectly healthy. Good ventilation in cold weather reduces the danger, but does not remove it. What is the explanation?

The average relative humidity of out-of-door air in the vicinity of Boston is about 73 per cent, and the minimum about 50 per cent. That is, out-of-door air generally contains three-fourths, and seldom contains less than one-half as much moisture as is necessary to produce fog. Now the amount of moisture that air may contain diminishes very rapidly as its temperature falls, being halved for about every 27° Fahr. reduction in temperature. Thus, air that had a relative humidity of 72 per cent at 0° Fahr. would have a relative humidity of only about 9 per cent when admitted to a room and heated to 80° Fahr. The air over the Desert of Sahara generally has a relative humidity of over 20 per cent; hence, the air in our highly heated rooms in cold winter weather may be twice as dry as the driest natural air on the face of the earth.

Nature, apparently, never foresaw modern conditions, and did not provide the nasal membrane with secretions adequate to keep it moist in our over-heated houses in cold winter weather. The membrane dries up, the cilia lose their protecting power. Furthermore, even though the dried scales of mucus may not be disturbed by the boring finger, their mere dislodgment by currents of air may injure the delicate membrane and produce lesions through which the bacteria find effective lodgment.

There is no reason to suppose that a well ventilated room with air at a temperature of 70° Fahr., and a relative humidity of 70 per cent should not be as healthy in winter as in summer. But air with a relative humidity of 70 per cent is never found outside of the kitchen or the laundry in a heated house in winter.

Now supposing one of the cold producing colonies of bacilli have pierced the outer line of defenses and found lodgment in the vascular tissue beneath the protecting membrane. Is the day lost? By no means, the outer wall having been pierced the intruders now find themselves face to face with the watchdogs of the body, the leucocytes, or white corpuscles of the blood, which proceed to wrap themselves about the intruders and almost literally "eat them alive." Hence, the necessity of keeping the system in excellent condition, well fed, therefore with plenty of good rich blood; hence, also, the necessity of having that blood where it is wanted and freely circulating. Breathing cold air tends to stimulate the circulation under the Schneiderian membrane and thus keep it in a condition to repel boarders.

But supposing the watchdogs are unable at once to destroy the intruders; the bacteria are on fertile soil and begin to grow and multiply. Then, and not until then, has the disease been contracted; then, and not until then, has one actually caught cold.

What is there in this process of catching cold that could be helped along by a little draft of cool air? Of course a big blast of

air might raise a dust and thus carry germs into the respiratory tract. It has been urged that a little chilling of the surface forces the blood away from the skin into the inner parts and thus produces congestion of the delicate mucus membranes. But congestion is not the cause of disease, it is the result of nature's attempt to overwhelm the invaders producing disease.

Supposing that one of us has a septic follicle upon the eyelid, that is, a sty; nature proceeds to pump blood to the affected part till the lid is red and swollen. How can we best help nataure? An ophthalmologist might lance the lid and drain away the poison, you or I would best apply a little pad dipped in water as hot as it can be borne and thus increase the congestion, that is, the flow of blood to the part. When the abnormal flow of blood to the part has furnished white corpuscles enough to kill the intruding germs, the disease disappears, and the abnormal flow is checked. Thus a little congestion of the Schneiderian membrane produced by forcing good blood in upon it would tend to prevent and not cause a cold.

But supposing a cold has been contracted, how shall it be treated? If the cold is severe, go to bed, but leave the windows open, clear out the colon with a dose of salts, have a light, but nourishing diet, and drink plenty of water, hot or cold. Complete rest is desirable that the whole energy of the body may be available for fighting the disease. Medicine other than the dose of salts should be taken only under the direction of a physician. If the cold is not severe, and generally one may go about his usual tasks following as far as possible the directions for a severe cold; that is, get all the fresh air possible, avoid ill-ventilated rooms and extreme fatigue, eat simple nourishing food, and keep the system well flushed with an abundance of water. Wipe but do not blow the nose. The precautions against spreading the disease are obvious. Do not kiss your friends, always cough and sneeze into a handkerchief, and never, never spit upon the floor or sidewalk. In most cases recovery is complete, but a cold may be followed by disagreeable, and even fatal, consequences. Connecting with the nasal fossae by ducts are several cavities in the boney structure of the head, which cavities are themselves lined with ciliated membrane, except in the case of the maxillary sinuses. All these cavities are liable to invasion by bacteria and may become the loci of more or less chronic inflammations of a serious character. Suppuration may occur, pus may be retained, and the bone become diseased. When a cold is not recovered from in due time, when more or less chronic catarrh with thick repulsive discharges ensue, then one or more of the sinuses has almost certainly been invaded. Under these circumstances the specialist should be consulted without delay. Catarrh of the upper and posterior sinuses may result in an abscess in the brain and death.

In the rear of the nasal fossae, just above the soft palate are the orifices of the Eustachian tubes leading to the middle ear. Hard blowing of the nose may force colonies of bacteria through one of these tubes into the middle ear, producing inflammation with resulting ear ache. If not at once checked by opening the ear drum and disinfecting the ear, deafness may result or the inflammation may extend into the spongy bone of the mastoid process. In the latter case, it is probable that a hole will need to be chiseled through the outer layer of the skull, the diseased bone excavated, and the cavity sterilized, or death may ensue. Many a mother has caused the death of her offspring by putting a handkerchief to his nose and saying "Now blow! Blow hard!" Mastoid abscesses are serious afflictions, and by no means uncommon. One of my friends performs more than one a day on an average throughout the year.

After all, prevention is better than cure. How can we best prevent colds? The answer is simple—by keeping away from the cold producing bacteria as much as possible and by keeping the tone and vigor of the body at such a point that we shall be able to resist their attacks.

Our forefathers lived in houses less tight than ours, and heated generally by a single fireplace. Except near the open fire the house was cold and the habit of wearing heavy clothing in winter was established. (Page 11.) We now live in houses heated from September to May to the average mean of a July day, and generally we have retained the heavy clothing of our fathers. The result is that the body, especially in the case of those of us who are no longer young, has lost its ability to adapt itself without discomfort to wide ranges of temperature. Face and hands, it is true, generally being uncovered, retain their adaptability. How great that adaptability may be is shown by the recent experience of a friend in climbing Popocatepetl in Mexico. Part way up the mountain the party was overtaken by a snow storm, and before they reached the hut in which they were to pass the night, the snow was knee keep in places. The guides, in typical Mexican peon costume, which can best be described as a suit of cotton pajamas, had rolled up their trousers to keep them dry and waded through the snow bare legged and bare footed, except for leather sandals bound by thongs to the soles of their feet. My friend asked one of the guides if he was cold. "Si Señor," he replied, "my nose is cold."

A short time ago I was shown a photograph of a group of about a dozen men standing on the shore and dressed only in

breech clouts. I was told that this photograph was taken at the L Street Baths in South Boston on a day in winter when the temperature was below zero. The surgeon who showed me this photograph was one of the group, and in it he pointed out several business men of Boston. It seems it was a regular thing for this club of men to sport in the waters of Boston Harbor in midwinter and to run around naked in the sunshine of a glass enclosure, to which, however, the outer air was freely admitted. On my expressing astonishment, that might perhaps have been understood as implying incredulity, the doctor displayed the calf of his leg, his chest, and abdomen: all were of a beautiful warm light mahogany, though the man was by no means naturally dark skinned. "Then none of you are afraid of catching cold," I said. "Catching cold!" he replied. "There are no bugs at the L Street Baths in winter." At Leysin in Switzerland, high up among the snow capped Alps, is a sanatorium for the cure of tuberculous patients. There in bright sunny weather one may see children clad only in hat, breech clout and shoes, with skin brown from exposure to the sun, playing in the fields or sliding on skees over drifts of snow.

Few of us would care to wade bare legged through the snow or go in swimming with the temperature near zero, but unquestionably we would be quite as comfortable, and certainly would feel temperature changes less, if we wore no more clothing than do our mothers, our sisters, and our wives. If we go for a walk, exercise should keep us warm; if we ride in an open vehicle in winter weather, then indeed we shall need heavy outer garments. To keep the skin healthy and resistant, we must not unduly pamper it, and a healthy resistant skin is a very important factor in maintaining the vigor and tone of the whole body. When we live in buildings kept at summer temperature throughout the year, why should we put on heavy underwear at the autumnal equinox? For many years I have had but one suit of heavy underwear, and I put that on only during July and August, at night, when I am to sleep upon the ground.

In civilized countries the conventions rather than hygienics generally determine the minimum amount of clothing that should be worn.

Equally important is the keeping of the surface of the body clean. In the case of most of us the weekly bath with warm water and soap is perhaps sufficient so far as dirt from external sources is concerned, but to keep the skin in good condition a daily shower or rub down with cold sponge or towel followed by vigorous rubbing with a coarse towel is much to be recommended. This rubbing should be followed by a blush and an agreeable sensation of warmth.

I have spoken of the importance of keeping the system well flushed by drinking plenty of water. The importance of this cannot be too strongly insisted upon. The normal man eliminates about two ounces of effete material through the kidneys every twenty-four hours, and to hold this material safely in solution requires about three pints of water. The breath we exhale is also saturated with moisture. In summer, in warm damp weather, we lose but little water from the lungs. In cold winter weather in our drier than Sahara houses we may lose a quart. We also lose a widely varying amount of water containing very appreciable quantities of effete material through the skin by sensible or insensible perspiration. The normal man may sweat a quart a day, the football player perhaps a quart, or more, an hour. In addition a small amount of water is required to render faecal matter sufficiently plastic for easy evacuation. Altogether more than three quarts of water must be swallowed each day, and all this must come from our food and drink. The average man I suppose eats from three to four pounds of food a day containing probably something less than three pints of water. About two quarts of water should therefore be the minimum amount taken as drink. An adequate supply of water is not only an important element in promoting bodily vigor through its effect in eliminating poisonous waste products, but also by more nearly insuring a moist Schneiderian membrane it is an important element in the prevention of colds.

Equally important is the regular daily evacuation of the colon. Any considerable accumulation of decomposing faecal matter within the body is not only a source of actual discomfort, it more or less poisons the whole body, and is not unlikely to lead to serious disease. Appendicitis is generally preceded by more or less obstinate constipation. In preventing constipation, nothing is so important as the establishment of a fixed habit. The habit once established, the urgent desire will return with clock-like regularity. The hour selected is less material, though perhaps no time would seem quite so appropriate as that immediately following breakfast. The important thing is that nothing shall be allowed to interfere with this necessary daily act. Not only is the establishment of a daily habit of great hygienic importance, it is of great practical convenience, as it leaves the remainder of the twenty-four hours reasonably secure from this interruption.

Finally, the question of ventilation is one of supreme importance. Until recently, the almost universal, but baseless, fear of a little draft of fresh air has been the chief obstacle in the fight against diseases of the respiratory organs, and has been responsible for the loss of millions of valuable lives.

Twenty-three years ago I was called from the bedside of my older son, seriously ill with a contagious disease, to another house in which my family had taken refuge and told by the attending physician that my other boy, an infant, had pneumonia and would not live until morning. I went into the sick room. The baby lay upon a pillow with pallid face and lips, and cool hands and feet; he had almost ceased to breathe. The windows were shut. The room was hot and close. Four women were in attendance, two of them with severe colds. I opened wide the windows, it was a late afternoon in March, put the women out of the room, and worked for fourteen hours as I never worked before or since. That baby was dying for want of the application of a little common sense and a lot of fresh air. Since then he has been a member of both our football and baseball teams, and has received two academic degrees.

Recently I related this incident to an eminent specialist on pulmonary diseases, and he remarked, "What was the —— fool thinking of?" Yet that older physician was a teacher in a Medical School and a man of excellent professional reputation. So much has medicine advanced in the last quarter of a century from Empiricism toward Science.

Fortunately, fairly adequate ventilation is not hard to secure. A specialist on pulmonary hygiene has recently written: "After all, the old fashioned method of ventilation by the open window still remains the most desirable and effective, provided only it be intelligently administered." The context shows that by "intelligently" he means freely. The Boston Association for the Relief and Control of Tuberculosis, in co-operation with the Director of School Hygiene of the Boston School Committee, has published a set of Health Rules. Rule 1 reads:

"Keep away from badly ventilated, badly lighted, dirty, overheated, crowded or damp rooms. Keep a window open."

Dr. Hill, writing on the ventilation of the Central Tube Railway in the London Times, says:

"Fresh, cool, moving air is essential for the maintenance of vigorous health."

The conclusions are obvious:

Colds are infectious germ diseases. They are communicated from one to another through ignorance or carelessness, and through our filthy habit of public expectoration, a habit which Dickens so vehemently assailed more than half a century ago. The dog barks or scratches on the door to be let out and then seeks some tree or post where sunshine and fresh air may do their work of purification. The Genus Homo pukes his expectoration upon walks, floors, stairs and even walls to be a source of subsequent infection to himself and others. The very precautions that we have ignorantly adopted to protect ourselves have been the means of rendering us peculiarly susceptible to colds and hindering our recovery after the disease has been contracted.

I hope to live to see the day, and I am quite sure that most of you will, when the warfare now being waged against the great white plague will be carried on against colds. The two diseases have many points of similarity; both are induced by the same bad methods of living; both are to be avoided or cured by the same general methods of procedure.

HOW ALL THE SCHOOL CHILDREN OF A COUNTY WORKED TO SECURE A VISITING NURSE

BY C. JOSEPHINE DURKEE, ROCHESTER, N. Y.

For a number of years public welfare workers have been becoming more firmly convinced that school children are valuable allies in any campaign for community betterment. In cities they have cleaned up the alleys, kept watch and ward over boys of less fortunate homes, and sold Red Cross Christmas seals to help pay for visiting nurses and dispensaries. A few rural schools under the stimulus of local initiative have engaged in these activities, but the little country school house in the farming districts has generally been left outside the movement.

The New York State Charities Aid Association has for years been co-operating with a committee from the State Grange, seeking to get an active rural team for community welfare in the districts of the little country school. Several forces have contributed to making this past year one of marked progress. The new law requiring medical inspection of all school children in the state has brought together for conference the District School Superintendents of counties, the School Trustees of the rural districts, and town and village Health Officers. For the first time to many

ALL OF THE OPEN AIR SCHOOL—EVEN THE BABY.

of these people has come seriously the question, "To what use would we put a visiting nurse in our farming districts?" To answer the question by a practical demonstration, the State Charities Aid Association offered a prize to the Granges for

A GROUP OF CHILDREN AT THE OPEN AIR SCHOOL.

the sale of Red Cross Seals during the Christmas season of 1913. They offered to employ a visiting nurse for a year, and present her service to the six Granges in the state who would sell the greatest number of seals, each of the six Granges to have her service for two months.

In Monroe County a tuberculosis survey of the county was in progress, and the committee having charge of the work secured the agency for the seals for the entire county outside of the City of Rochester. The time arrived for the distribution of seals, and the committee had been unable to secure satisfactory co-operation with each of the nineteen Granges in the county or to arrange for them to handle the seals. No time could be lost if the prizes were to be won. The agent prepared three sets of letters, one to every school trustee in the county, another to very teacher in the county, and the third to each Grange, stating that every school was asked to help its local Grange win a prize of the nurse's service, and that 1,000 seals were being mailed to each school. Would they not sell the seals, and return the money through their own Grange?

At the County Tuberculosis Hospital (Iola Sanatorium) in the town of Brighton is an Open Air School, an ungraded country school. where all the pupils are under treatment for tuberculosis. They also were asked if they would sell seals for Brighton Grange.

They knew what a school nurse meant; they knew they were the only country school in the county that had a nurse, and they had seen some of the other country schools when they have been out tramping with their teacher. "Sure! we'll help get a nurse for all the other schools of Brighton," they said. From all over the county came replies, "We have only four (or six or ten) pupils and our homes are widely scattered, but we are glad to do what we can." "My children are very small and we cannot promise great things, but we are glad to try." They did "try."

A school of four pupils in homes a mile apart sold 900 seals. In another of eight pupils 500 seals were sold; one of seven pupils sold 750 seals; one of four pupils sold 217 seals, and one of seven pupils sold 418 seals. Nine sold 1,300 seals; eight, 460; another eight, 200; seven, 700; of three, 104; and the little country school of twenty-two pupils at the tuberculosis hospital sold 7,107 seals. Nellie Markowitz, a little Jewess, and Emily Brashia, a little Italian girl, asked their teacher if they might go outside

EMILY, WHO SOLD 1,408 SEALS.

and take orders for seals. Their success was a surprise to everybody. Nellie sold 4,513 seals and Emily sold 1,408 "to help get a nurse for the other Brighton schools." They told where they came from, and asked people to give them an order for seals. Nellie has a sister and a brother at the Open Air School, and they offered to let her have the count for their sales, but she refused credit for more than her own labors.

More than 110,000 seals were sold in the rural districts. Seven of the nineteen Granges have to their credit amounts varying from $75.00 to $145.00. Four others have over $50.00. The money is to be used to help pay for the tuberculosis survey of the county. There are no people more surprised at the results than are the children who have "tried," and the families who have "bought a few seals" of their own children.

NELLIE MARKOWITZ, CHAMPION SEAL SELLER, AND HER TEACHER. SHE SOLD 4,513.

The Master of one Grange said: "In my district every child had seals and every home has children, so their market was limited." A teacher writes: "One boy could not dispose of his seals in his district, and he asked his father to take him to Rochester to the market; he sold his seals there." Another teacher writes: "Please find inclosed six dollars and twenty-nine cents and also the three hundred and seventy-one unsold seals. I would have been delighted to have been able to have sold the remaining seals, but I have only eleven pupils in my school and they are very small. One of the pupils sold 449 seals." One boy sold 800 seals; a little girl sold 400, and as many as sixty sold 100 each. Several teachers said their seals miscarried, and arrived too late to be of use, much to the disappointment of the children. One teacher writes: "We send you our money; it is very little; my children are very small and the homes are two miles apart; and they have lost a few seals; but we have enjoyed the work."

There are 195 schools in the county outside of Rochester. How to reach all of them was a problem to the agent. The District School Superintendents furnished the agent with the names and addresses of all the school trustees and teachers in the county, and we found the U. S. Mail the most economic method of communication. Rural Free Delivery brings us all into easy communication.

This demonstration is sufficient to convince us that any Grange may supply the schools of its own territory with seals, and raise a substantial sum for local use. The subordinate Granges of each county may in this way help Pomona Grange raise money for the rural visiting nurse. The Granges have secured their own fire insurance, their good roads, and rural free delivery, and now their own children will help them get their school nurses.

THE HOME HOSPITAL EXPERIMENT

By JOHN A. KINGSBURY, COMMISSIONER OF CHARITIES, NEW YORK CITY.

An experiment of unusual interest and value to anti-tuberculosis workers has been that carried on at the "Home Hospital" in New York City, the first annual report on which has recently been issued by the New York Association for Improving the Condition of the Poor, under whose auspices the work is being conducted. It is an experiment in the combined treatment of poverty and tuberculosis and has for its ultimate aim not only the cure and prevention of physical disease, but also the rehabilitation of the family to an economically self-supporting unit in society.

That there is a real relation between tuberculosis and poverty is shown by a quotation from the introduction to the report:

"A recent investigation of the causes of poverty in the families of widows receiving

TEACHING A YOUNG MOTHER HOW TO COOK.

assistance from the Association has shown that 55 per cent are widows because the bread-winner died of tuberculosis."

The Home Hospital, ideally located at 78th Street and John Jay Park, occupies an entire section of the East River Homes popularly designated the "Vanderbilt Tenements." An open staircase leads to the 24 apartments, consisting of from two to four rooms each, including one or more bed-chambers with open-air sleeping balconies. From a sanitary standpoint these apartments far excel the most exclusive apartments in New York City. No expense has been spared to provide a maximum amount of sunlight and ventilation for each room. Even the windows, extending from ceiling to floor, are arranged in three sashes, so that when open two-thirds of the space is unobstructed. On the roof is a spacious solarium with hedges of privet and geraniums. A part of this solarium is reserved for patients. Here in reclining chairs they take the cure. Another part of the roof is the children's playground, where there is no premium on fresh air and sunshine. There they play and make merry remote from the danger of infection. Still another part of the roof is occupied by a fresh-air school.

Three of the apartments are used for administrative purposes. One comprises the office and clinic. Another two-room apartment has been equipped as a general store, in which are sold all foodstuffs used by the families. A third apartment on the top floor has been equipped as a general kitchen and dining-room. The diet kitchen is also used for a class-room, where cooking lessons are given to mothers and the relative values of foodstuffs explained.

The hospital was opened March 19, 1912. To state its aim more fully, it is an attempt to demonstrate by a three-year experiment that if sanitary housing with ample sunshine and fresh air, adequate relief, including good and abundant nourishment, freedom from undue work and worry, reasonable segregation, skilful medical care and constant nursing supervision be provided, it is possible:

1. To prevent the spread of tuberculosis from the sick to the well members of the family and particularly to protect the children from infection;

2. To cure many of the family who are in the early stages of disease;

3. To secure improved health and larger earning capacity to patients whose cases are moderately advanced; and

4. To complete, at least in instances, the rehabilitation of the family, physically, economically and socially.

In selecting families to participate in this experiment, preference has been given: 1st, to families in which both poverty and tuberculosis are more or less incipient; 2d, to families believed to possess sufficient intelligence to co-operate in the experiment; 3d, to families in which dependency is due to tuberculosis of the wage-earner; and 4th, families in which tuberculosis of the mother renders it inadvisable to keep home together under ordinary circumstances; in general, to poor families made or kept dependent by tuberculosis and in which the disease is not more than moderately advanced.

As its name implies, one of the purposes of the hospital is to preserve the home. Therefore, so far as possible, each family is permitted and helped to live a normal home life. The medical regime adopted is that of the best sanatoria and hospitals, including regular physical examinations, weekly sputum tests, adequate segregation of the more advanced cases, open windows and outdoor life upon the balcony, the roof or in the park near by, absolute rest for those who need it, and a graduated amount of exercise for appropriate cases, and constant medical oversight, nursing care and home inspection. A fresh-air school for the children is held on the roof, and other instruction is regularly given in cooking, sewing, nursing, care and feeding of infants, personal cleanliness, hygiene and sanitation.

"SUNNY JIM," BEFORE AND AFTER THE HOME HOSPITAL.

Thus far, both from a medical and from a social point of view, the experiment has proved a success, even beyond the expectations of the experts who first approved the plan. The medical results, for example, obtained with the adult cases compare very favorably with those of the leading sanatoria, 61 per cent having been apparently cured, 22 per cent having had their disease arrested, and 11 per cent being much improved. The improvement of the children rivals that of the best preventoria. It should be borne in mind that most of these patients could not have been admitted to sanatoria or hospitals, and hence but for the Home Hospital would have received no treatment other than dispensary treatment, and that these results have been obtained in the very heart of New York City with the family unit preserved. Besides, not only the patient, but all the other members have been taught the principles of hygienic living. If the medical results of the experiment during the ensuing two years are as favorable as these twelve months have been, it seems certain that this method of proper housing of patients as family units with adequate relief, ample medical and nursing supervision will have been demonstrated as the key to control of tuberculosis in large urban communities. During the year there have been under Home Hospital care twenty-seven families, containing one hundred and thirty-five individuals, of whom seventy-nine were patients or suspects. Thus the average number of members in each family is exactly five and of patients two and nine-tenths. Eleven of these families, containing twenty-three patients, twelve of whom were wage-earners, have been discharged. Six of the eleven families were rehabilitated physically, socially and economically—that is, each member has been restored to health; all have learned the lessons of personal hygiene and have acquired the habit of the lessons learned; the mothers have learned and are able to put into practice important and valuable lessons of home economy, such as how to buy to the best advantage, what to cook and how to prepare it in order to secure the maximum of nourishment at the minimum of cost; and each family is able to earn and does earn sufficient to support itself under normal conditions without the help of charity. Three families had to be discharged for persistent intemperance, and two for refusing to follow advice and direction. The condition of these five families, however, as a consequence of the treatment received at the Home Hospital, showed a very marked improvement.

When admitted, four of the families were almost absolutely dependent; the average weekly income of all was a trifle in excess of six dollars. When the rehabilitated families moved away from the hospital, their average income had increased to almost fifteen dollars per week.

Before a family is admitted its members understand definitely just what will be expected of them, and what they in turn may expect from the Association. All able-bodied members, for example, must work and account to the hospital for the expenditure of their incomes. Intemperance is not tolerated. All instruction and advice must be faithfully followed, and supervision of the home by the resident staff and attending physicians must be permitted. On the other hand, the Association supplies or supplements in each family everything that is necessary for the mainte-

nance of the normal standard of living and for the medical treatment of the patients.

The management of cases is similar to that in the best hospitals and sanatoria. Although the family unit is preserved, the patient is so closely supervised as practically to prevent infecting the well members of the household. Each adult patient has a separate room and his individual dishes are sterilized. There is strict insistence upon such precautions as refaining from kissing and protecting the mouth when coughing.

A daily morning and afternoon temperature and pulse record is kept of all positive and suspected cases. Sputum examinations are made weekly. The weights are recorded weekly. Each patient is provided with a notebook, in which answers to the following questions are entered daily:

How many hours' sleep?
How many sections window open night?
Head or feet to open window?
Amount cough, sweat, or expectoration (during both day and night)?
Hour of arising?
Morning tub?
Cold water to chest?
Breakfast menu?
Morning temperature?
Hour started for roof?
Nourishment at 10 a. m.?
Dinner menu?
Hour retiring from the roof?
Nourishment at 3 p. m.?
Temperature at 3 p. m.?
Supper menu?
Nourishment at 9 p. m.?
Hour of retiring?
Amount exercise or work during day?
Amount sleep during day?
Chills, day or night?
Total hours spent in the open during day?
Total amount of milk and eggs during day?
Condition of bowels?
Gain or loss in weight each weighing day?
Amount of earnings, if any?
General remarks?

A comparison of the cost of caring for the families in the Home Hospital with the usual method of dealing with disease and poverty in institutions shows the Home Hospital to have the advantage in every way. Not only does the actual per capita *per diem* cost at the Home Hospital compare favorably with similar costs at the best tuberculosis sanatoria, but the actual cost to the community is also less, as may be readily seen. For purpose of illustration, three typical tuberculous families that relief societies are usually called upon to aid have been selected, viz:

1. Both parents (chief wage-earners) and usually one or more children afflicted.

2. The father (principal wage-earner) and perhaps one or more of the children having tuberculosis.

3. The mother (housekeeper) and probably one or more of the children tuberculous.

An itemized comparison showing relative costs for these various types of families follows:

TYPE I.

Plan 1.—Entire Family in Institutions.

	Age.	Health.	Weekly per capita.	Institution.
Joseph (father)	33	Tuberculous	$10.25	Hospital
Margaret (mother)	31	Tuberculous	8.96	Ray Brook
Joseph	9	.....	2.25	Orphan Asylum
John	5	.....	2.25	Orphan Asylum
Eleanor	3	.....	2.25	Orphan Asylum
William	18 mos.	Suspect	2.35	Orphan Asylum
Helen	2 mos.	.....	2.35	Orphan Asylum

Total cost of family per week in institutions $30.66.

Plan 2.—All in Home Hospital.

Items.	Weekly per Family.
Rent	$5.25
Food	7.00
Clothing	1.38
Fuel	.47
Dues	.98
Medical and surgical supplies	.70
Ice	.09
Household supplies	.84
Miscellaneous	.42
Administration and supervision	9.80
Total cost per family per week in Home Hospital	$26.93

TYPE II.

Plan 1.—All Except Mother and One Child in Institutions.

	Age.	Health.	Institution.	Weekly per Capita.
James	29	Tuberculous	Hospital	$10.25
Bella	28	.....	(At work)	.....
John	3	Suspect	Orphan Asylum	2.25
James	2	Suspect	(With mother)	.....
Joseph	4 mos.	Tuberculous	Hospital	6.16

Total weekly cost institution care, mother supporting herself and one child.....$18.66

Plan 2.—Family at Home and Patients in Institutions.

Man's care	$10.25
Baby's care	6.16

Family's Care.

Food	$3.25
Rent	2.00
Fuel	.60
Light	.25
Clothing	1.25
Incidentals	.50
	$24.26
Less mother's earnings as a cleaner	6.00
Total weekly cost, less mother's earnings	$18.26

Plan 3.—Entire Family in Home Hospital.

Rent	$4.69
Food	6.40
Clothing	1.44
Fuel	.31
Dues	.61
Medical and surgical supplies	.43
Ice	.09
Household supplies	.40
Miscellaneous	.43
Administration and supervision	7.00
Total cost in Home Hospital	$21.80
Mother's earnings if she had been allowed to work	6.00
Total weekly cost in Home Hospital less mother's earnings	$15.80

TYPE III.

Plan 1.—Entire Family Except Father in Institutions.

	Age.	Health.	Weekly per capita.	Institution.
Frederick (father)	40	.....	.....	.....
Blanche (mother)	28	Tuberculous	$10.25	Hospital
Edgar	9	.....	2.25	Orphan Asylum
Ruth	6	Incipient	5.60	Preventorium
Geraldine	3	Incipient	6.16	Hospital
Dorothy	8 mos.	Tuberculous	6.16	Hospital

Total cost in institutions $30.42
Less part earnings of father..... 7.00
Net cost, less part earnings of father.....$23.42

Plan 2.—In Home Hospital.

Items.	Weekly per Family.
Rent	$5 60
Food	8.89
Clothing	1.89
Fuel	.50
Lunches	2.16
Dues	.43
Medical and surgical supplies	.59
Ice	.09
Household supplies	.42
Carfare	1.17
Miscellaneous	.73
Administration and supervision	8.40
Total cost in Home Hospital	$30.87
Less father's earnings	13.00
Net cost in Home Hospital	$17.87

One remarkable result and proof of the rehabilitation of the six families already discharged is shown in their increased earnings after leaving the hospital, as shown in the following tables:

	Families Discharged as Rehabilitated. Weekly Earnings on Admission.	Weekly Earnings when Discharged.
K. -	$4.50	$16.50
Sa.- -	6.00	12.00
G.—	.....	16.00
St.—	7.50	17.00
W.- -	10.00	14.00
Se.—	10.50	12.50
Total	$38.50	$88.00
Average ...	6.42	14.67

	Discharged for Intemperance or as Not Amenable to Advice and Direction. Weekly Earnings on Admission.	Weekly Earnings when Discharged.
McG.—	$6.00	$17.50
D'A.—	6.00	12.00
F.—	2.50	2.50
L.—	4.50	20.00
O'G.—	6.50	17.00
Total	$25.50	$69.00
Average ...	5.10	13.80

A limited number of copies of the complete report, consisting of 75 pages, are on hand and may be had on application at the New York Association for Improving the Condition of the Poor, 105 East 22d Street, New York City, and on receipt of four cents to cover postage.

ASSOCIATIONS OF PHYSICIANS FOR THE STUDY OF TUBERCULOSIS

By THEODORE B. SACHS, M.D., CHICAGO, ILL.

A study of the existing anti-tuberculosis machinery in various cities discloses the absence of special physicians' associations for the study of the medical side of the problem. The lack of such associations that would bring together, at stated intervals, medical men interested in the disease for the purpose of discussing its important phases, seems to be a grave omission in the general scheme, considering the importance of the medical profession as a factor in the anti-tuberculosis movement, as well as the existence of a large number of medical questions pertaining to tuberculosis on which the collective judgment of the medical profession can be formulated only through continuous discussion and study.

To meet this need, all Chicago physicians connected with tuberculosis sanatoria, hospitals and dispensaries, as well as medical men interested in the study of the disease, were invited, under the auspices of the Chicago Tuberculosis Institute, to a luncheon on February 11th, 1913, at the City Club, at 12 o'clock, M., to attend the first meeting of the so-called "Tuberculosis Study Circle." It was plenned that the time between 12:15 P. M. and 1:00 P. M. be given to the luncheon and the hour between 1 and 2 to the presentation of some important medical phase of tuberculosis by some one who has made a thorough study of it. These meetings proved to be exceedingly popular, bringing together for the first time, at regular intervals, physicians interested in the study of tuberculosis.

The following points were learned in the course of experience of the last ten months which are probably important in connection with the organization of such associations:

1. Do not waste time in preparation of elaborate by-laws and constitutions. Get a man well posted on a certain phase of the disease and announce him as speaker for the first meeting. Prepare the by-laws later.

2. Best time for meetings of physicians is the lunch hour. Lunch from 12:15 to 1 P. M. Address and discussion from 1 to 2. Adjournment promptly at 2. Meetings once a month.

3. Bar written papers; notes permissible. Subject should be thoroughly handled by a well-posted man.

We are now in our tenth month of existence, and it is very evident that our organization has done a great deal of good in the direction of adjusting differences of opinion, stimulating study, and bringing closer together the medical men interested in the disease. The next meeting of our organization will be called under a new name—"The Robert Koch Society for the Study of Tuberculosis." So far seven meetings have been held since February 11th, 1913. The subjects presented were as follows:

1. "The Chemiotherapy of Tuberculosis," Dr. Gideon Wells, of the University of Chicago.

2. "In What Class of Cases Should We Use Tuberculin, Particularly in the Dispensary Practice?" General discussion by all present.

3. "The Treatment of Pulmonary Tuberculosis with Artificial Pneumothorax," Dr. W. A. Gekler, of the Indiana State Sanatorium, Rockville, Indiana; formerly Assistant to Dr. Brauer, of Marburg.

4. "Some Phases of Immunity with Special Reference to Tuberculosis," Dr. Ludwig Hektoen of the University of Chicago.

5. "Experience with Tuberculin," Dr. Charles L. Minor, Asheville, North Carolina.

6. "Pneumothorax in the Treatment of Pulmonary Tuberculosis," Dr. John B. Murphy of the Northwestern University Medical School.

7. "The Present Status of Tuberculin Therapy," Dr. Louis Hamman of the Johns Hopkins University.

Attendance at these meetings averaged from 55 to 85. It may be desirable that the plan we put in operation in Chicago should be studied by medical men in other cities. A greater adjustment of views of the medical profession on the subject of tuberculosis, as well as a further incentive to study of this widespread disease, is greatly needed.

Be sure that the physicians' association is affiliated with your local anti-tuberculosis organization, and through that with the National Association for the Study and Prevention of Tuberculosis.

WHERE IGNORANCE IS DEATH *

BY ALICE MAVOR EDWARDS, MONROVIA, CAL.

He was not the kind of a man to figure in romance; only a plain middle-aged machinist who had done his day's work since he could remember with hearty thankfulness that there was work to do. Plenty to eat of a sort, school books for the kiddie, and the rent paid every month. He and the woman had managed that.

One day he began to cough. The atmosphere was heavy in the shop. With close moist air, fatigue, and the shock of draught upon unprotected shoulders—yes, one easily caught cold and having once caught it, too easily kept it. So he coughed, all winter, all spring, and—it had never hung on quite so long before—all summer and all winter again.

Then he noticed he was not working with his old vigor. Coughing tired him. It was becoming too much trouble to eat after a day's work. He would come home at night, fling himself upon the couch and fall into a numbing sort of slumber, only to be wakened by the cough which shook him more harshly at each paroxysm. Still, a man does not go to a doctor when a call means two days' wages, or a lay off from the chief business of life. Instead, he coughs on. For four years John Jones coughed on, lost flesh, and worked without ambition and with ever-increasing weariness. Then the drop came.

The physician looked at him sharply. He was panting and trembling with the fatigue of a few stairs' climb. The physician knew what the short breath, the feverish lips, the abnormally bright eye and that incessant cough meant. He was not a brute. He was only a busy and harassed man whose hours for eating and sleeping had been reduced to improper fractions by the demands of just this sort of thing. There was the formal examination, of course, the weary man's bewilderment growing with each new test, then—

"Consumption, man!"

The doctor did not hesitate to use the old-fashioned term for the disease now known under a more euphonious title.

"Quit work at once. Go down to Arizona and live in the open air—your only chance. People get well there."

And he bowed the stricken man out of the door with a throb of pity for the twitching lips and anguished eyes.

John Jones was not the kind of a man who thinks or acts quickly. It had become easier to do things slowly in the past few years. And he was tired now—very tired. He found it hard to board the car at the corner. He scarcely noticed when the conductor called his street and roughly urged him to hurry as he hesitated with a foot on the running board.

Consumption! That was what the doctor had said of Brown who had worked next to him for years, and who died there in the shop of sudden hemorrhage one day only a few months since.

Quit work! Why, he'd worked every day, always—Sundays, too, most of the time—a full, clean day's work. A man might be tired; he might cough; but he must work and work hard when there were Mary and the growing kid. Quit work! Who paid the bills when a man quit work?

Arizona—where was that? He had heard of it remotely as he had heard of Patagonia or Siberia or the Klondike. He must go, of course, if the doctor said, for the doctor knew. People got well there, and he must get well. The fight was hard enough when a man was strong. How did one get to Arizona? How—

He ran across Casey here. Casey belonged to the bunch that met sometimes for a glass and a smoke and a social game together at "Mike's"—only once in a while, though. Casey was fat and red of face and had all the insolence of health.

"Hard luck, old man!" His hearty slap upon the thin shoulders made his companion wince, but Casey did not see that. "Got to go, have you? We'll see if the bunch can help a little. Don't get fussy." And terrified at the sight of any sort of human emotion, and even more embarrassed at a display of human gratitude, Casey was off.

The "bunch" had helped; the boss and the boys at the shop had helped. They had been glad to give but they had not much to spare; and it was no small source of pride to them when they had collected just exactly seventy-five dollars.

Mary could sew enough afterwards, she said; he was not to worry.

And now he was in the day coach for his four day trip, his lunch in a big basket beside him. One could not afford a sleeper when tickets cost so much.

Who would believe that it would cost so much! He had not known before how desperately weary he was. It was hard to breathe with the motion of the train which shook the piteously thin shoulders. The coal dust made one cough more raspingly too. To eat was an effort—why eat, when a man was *so* tired?

Hunched into a corner of the seat he sat, a pitiful, broken-chested, shivering creature, hot fever touching his cheeks with livid color. He had tried to eat one

*Reprinted by permission from the Survey, Jan. 10, 1914.

of the sausage sandwiches which Mary had so carefully packed in with the cheese and doughnuts. A few soiled handkerchiefs and cloths lay about on the floor and in the rough plush seat, laden with death-dealing mucus for the next occupant. John Jones was not an uncleanly man. But when one coughed so hard and so long, it was not always easy to be careful. The porter would not bother. John learned that when he called to him one morning, dizzy with that dreadful nausea from the car motion. "The company didn't have anything to do with 'lungers'; there ought to be a law to prevent their riding at all."

If only he dared ask for a drink now. But perhaps he could reach the cup himself there under the water cooler. It was hard to move, harder still to stagger up the lurching aisle. But the water which he drank in gulps of thirsty gratitude from the common cup was most refreshing. Of germs he had not heard. Of infection he did not dream. The doctor had not said.

He pulled himself back to the seat and settled down again into his corner, shaking and spent with the effort.

It was there that I found him as I was passing through from the Pullman. There was little to do, but he seemed grateful that anyone should have the inclination to chat with him. It was lonesome, he said, and he was tired. He talked of Mary and the kiddie and of some of the things he hoped to do for them when he was well—in Arizona.—He would get some light job right away, then Mary need not work so hard. He would be rested after he got off the train. People always got well there.

His hungry look as we passed the depot lunch house at a little way station sent me out to get a cup of coffee for him. I came back to find a hushed compartment, a Negro porter gray with superstitious terror plucking at a shriveled inert heap where John Jones had lately sat.

And at home Mary was sitting half-heartedly picking at a bit of unfinished sewing, waiting to hear of a safe arrival. Loneliness had grown less endurable with every hour. Anxiety had made the days a dragging suspense, the nights a prolonged terror. It had been hard to let him go. But the doctor had said—

What was it the doctor had said?

The doctor had said just enough to send a man with the sentence of immediate death upon him a torturing journey of two thousand miles away from such friends and comforts as he possessed. He had gone with no knowledge of the disease he was combating, no resources for caring for himself in a strange country, no thought of the precautions necessary to public safety.

Three sufferers from the effects of John Jones' wretched and ill-advised journey—John, Mary, the public. But how are John and Mary and the public to know better?

THE PARTING OF THE WAYS

(With genuflexions to Mr. Kipling)

We've walked an' talked an' ate an' drunk as rations came to han'
Together for eight months or so aroun' this bloomin' San.
Now you are going Home again, but we must see it through.
We needn't tell we liked you well. Good-bye. Good luck to you.

The doctors ordered you to come, an' so you doubled out;
And bein' with you made it lots more pleasant than without.
Whatever game we fancied most, you played it joyful, too,
And rather better on the whole. Good-bye. Good luck to you.

There isn't much we haven't shared since to the San. we come:
The same old air, the same old friends, the same old cold and sun;
The same old chance that holds us here has winked and let you through;
We're happy for you, dear old girl. Good-bye. Good luck to you.

Our trail has truly mixed with yours all roun' an' back again:
We've worked the old thermometer; we've had tuberculin;
We've had the same old temperature, the same relapses, too,
The same old saw-backed fever-chart. Good-bye. Good luck to you.

But 'twasn't merely this an' that (which all the world may know),
'Twas how you talked an' looked at things that made us like you so;
Some independent, always kind, and most amazin' new.
My word! You shook us up to rights! Good-bye. Good luck to you.

Think of the walk up old Chunk Hill beneath the sun's bright ray,
Or, better still, when clear and cold, it bathed in moonlight lay;
The trail up Walnut Mountain; the Cliffs, where we an' you
Went scrambling up on hands an' knees. Good-bye. Good luck to you.

Good-bye! So long! Don't lose yourself—nor us, nor all kind friends,
But tell the folks down on the Street we're coming—when it ends!
Good-bye, old girl. We're glad we met. You taught us something new:
The world is full of friendly pals. Good-bye! Good luck to you!

—*H. A. H., Loomis Sanatorium.*

THE WORKER'S CORNER

During a somewhat lengthy discussion on a paper read before the last meeting of the National Association, one tired worker was heard to remark to another: "I've come an awfully long distance, and I need so much help and so many suggestions that I wish we might get together and profit by each other's mistakes and experiences." Many others have wished and expressed the same desire at similar meetings. "Ye lyfe so shorte ye crafte so longe to learne," seemed uppermost in the mind of most of the workers. This reason alone seems to justify the creation of a new department in the Journal of the Outdoor Life to be called "The *Worker's* Corner."

The aim of the Corner will be to answer as briefly and concisely as possible, inquiries from anti-tuberculosis workers, such as secretaries of associations, visiting nurses, physicians in charge of sanatoria or dispensaries, teachers, ministers and others, relating to the various phases of the anti-tuberculosis campaign. The Tuberculosis Question Box will still continue to answer the queries of patients; this Corner will be a question box for workers. Sometimes for lack of space or information it will not be possible to give a complete answer, and in such instances the writer will be referred to those who are known to be doing the things he is inquiring about. Oftentimes, no doubt, the information given may be incomplete. In such cases, the readers of the Journal can help others by giving fuller details on the problems under discussion for publication in subsequent numbers.

The Corner, as this will show, will not be for questions and answers only. It will be a common meeting-place for the discussion of common difficulties by all anti-tuberculosis workers, either through the medium of a brief signed note, a question, or a communication to the editor.

So far as possible, it is desired that the name and address of those contributing to the Corner be used. This will not be an inflexible rule, however. Whenever, for reasons of convenience, policy or space, it is desirable, questions will be answered directly, and not through these pages.

The Tuberculosis Question Box has proved such an unqualified success with the patient-readers of the Journal that the editor looks forward to a similar opportunity for service through the Worker's Corner. Anyone, whether a subscriber to the Journal or not, is welcome to the privileges of the Corner.

To afford some suggestions as to the kind of questions and discussions which the Corner may publish, the following typical ones are given, some of them actual inquiries and others artificial, as is necessary this first month:

Employment of Convalescents

To the Editor:

Have any experiments been tried in this country on giving special employment to convalescent tuberculosis patients or sanatorium graduates?

Inquirer, Maine.

Aside from more or less successful attempts in various cities to find "light outdoor employment" for sanatorium cases, little systematic work has been done along this line. Many doctors are recommending patients wherever possible to resume their former employment. (See article on "Employment of Tuberculosis Patients," by Dr. W. J. Vogeler, Journal of the Outdoor Life, August, 1912.)

The last Legislature of Wisconsin appropriated a considerable sum for the establishment of a state camp for convalescent consumptives on the forest reserves, with a view to teaching them forestry and at the same time giving them a chance to recover more fully. This camp will soon be opened. (See article on "What the Forest Reserves Offer to the Consumptive," by E. M. Griffith, Journal of the Outdoor Life, January, 1913.) Plans for the establishment of workshops for the manufacture of white goods by consumptives under strict medical supervision are soon to be put into effect in New York and in Philadelphia. Subsequent numbers of the Journal will give full details of these experiments.

During 1913 the New York State Legislature passed laws authorizing the operation of workshops in connection with municipal and county tuberculosis hospitals. These are designed for both resident and discharged patients.

(*Concluded on page* 86.)

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JAMES ALEXANDER MILLER, M.D., President — LIVINGSTON FARRAND, M.D., Vice-President — PHILIP P. JACOBS, Ph.D., Secretary-Treasurer and Managing Editor

The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

THE HOME HOSPITAL

In many fields of preventive medicine and public health where there is no precedent to follow, large sums of money are needed in order to try out an experiment which will disclose to the public, to those subscribing the funds, and also to the State, the efficacy of such an experiment.

It was quite evident that the Home Hospital would be expensive, but the present Commissioner of Charities of New York City, who originated the idea and who was able to secure the funds for beginning the work, felt that although it was a great expense to those undertaking it, yet it was a cheaper method of treatment to the State at large than methods previously applied to the treatment of tuberculosis

The usual sociological treatment of tuberculosis in families has consisted in the removal of the incipient or advanced case to suitable sanatorium or hospital accommodations, the sending of the children to the preventorium, and for the rest of the family material relief when relief is needed, though oftentimes this relief is inadequate. The Home Hospital report well shows that the cost of this usual method of treatment is in excess of the cost of the Home Hospital method of treatment. The cost of a typical family by the above-mentioned method being $1200 yearly, and in the Home Hospital $1000 yearly.

The advantages of the Home Hospital have been: daily supervision by Doctor, Superintendent and Nurse to see that hygienic methods were daily carried out; that work was done only when the patient was able to work; that when the mother was not able to do her own housework, promptly to send in a cleaner to do it for her and to have her cooking done for her, so that the children, notwithstanding the mother's illness, would still be able to secure proper nourishment. As a result of this hospital and home care, patients have been restored, not only to health, but also to a status of economic efficiency which has enabled a number of them to return to their former avocations and to be self-supporting and no longer a burden on the community. Many patients returning from hospitals or sanatoria far too often relapse, and after the relapse has begun, feel compelled to continue at work until it is almost too late again to become cured. How different the result in the Home Hospital where patients have been admitted of all classes—incipient cases suitable for sanatoria, advanced cases which would only have received dispensary care, and far advanced cases which were in need of hospital care! By the careful watching given at the Home Hospital the work of the patients has been so supervised that the danger of relapse has been reduced to a minimum. The physicians in charge have been unusually fair in classifying their cases of tuberculosis. Cases that usually would be classified as incipient, on account of the distribution of the signs, but who had no active symptoms, were put

in a separate class, being referred to as those patients with signs of incipient tuberculosis.

Out of 27 families there were 79 cases of tuberculosis. Of this number 61% have been reported as apparently cured. The physicians in charge have included in this number of apparently cured cases those cases which showed no active symptoms at the outset, but on discharge could not be classified as anything else except cured. The children in the Home Hospital were classified as tuberculous, suspects, or well. Those classified as tuberculous showed the presence of tubercle bacilli in the sputum, or the presence of interscapular dullness, or the presence of rales in the region of the nipple, or marked diminution in weight for age, or the presence of the Von Pirquet reaction. The diagnosis was not considered positive unless the first of the above tests was present, or three of the other four.

As a result of the year's work, 11 families with 23 tuberculous patients have been discharged, either cured or markedly improved. Several families were discharged for continual drunkenness or insubordination, and the remainder stayed in the hospital, improved, with their expectation to be discharged some time during the coming year.

With the physical improvement, a most important feature of the work, comes also the economic improvement in the condition of the family. The daily instruction and example to the mother in the care of the home and the preparation of food, and in the economic purpose of food, and the securing of work for the husband and father, and suitable work for the older children, have enabled the family to be placed upon a firmer basis of economic dependence than they have ever had before, or, as the report expresses it: "That with physical improvement has come family rehabilitation."

The most important feature of the work has been the fact that during the year and a half that the Hospital has been open no new case of tuberculosis has occurred, notwithstanding the fact that the sick and well have lived in the same apartment.

TUBERCULOSIS IS INFECTIOUS

One of the most pernicious attempts to discredit the present anti-tuberculosis movement was recently made through the press service of the Christian Science Church. The publicity took the form of quotation from, and comment upon an article by Dr. Edward R. Baldwin, the eminent tuberculosis specialist of Saranac Lake, and gave the impression to the casual reader that both the authority and the experience of Dr. Baldwin and the prestige of the Journal of the American Medical Association, from which the Christian Science Monitor quoted, supported the belief that tuberculosis is not an infectious disease. Dr. Biggs' article is sufficient reply to this criticism. It may not be amiss, however, to quote in this connection the following letter from Dr. Baldwin to the Editor of the Journal of the American Medical Association:

"I desire publicly to correct a serious misrepresentation of my views on infection in tuberculosis that has recently been given wide circulation by a Christian Science journal.

"By a *partial* quotation of some conclusions that had summed up the gist of a lecture delivered in Baltimore last May, the above-mentioned article places me in the position of declaring tuberculosis *not* infectious! Nowhere in my conclusions is such a statement made.

* * * * *

"It hardly seems necessary to deny such palpable abuse of the truth in this the twentieth century. Were it not for the widespread use of this article (which was based on an editorial in the Journal of January third in which you kindly and fairly commented on the lecture) as a protest against hospital care of the tuberculous, I would bear the unpleasant notoriety in silence.

"Not only is tuberculosis infectious, but I firmly believe that the isolation and humane care of the advanced tuberculous patients in hospitals, sanatoria or homes, is the most important and only sure way of preventing infection."

THE WORKER'S CORNER.

(*Concluded from page* 83.)

Starting An Open Air School

TO THE EDITOR:

Please give some suggestions about starting a fresh-air class or open-window room in a public school.

J. S. P., New Jersey.

Now is a good time to begin to start the agitation for an open-window room, because by the time you get the consent of each child's parents that their children should sit in the open-window room, it will be time to present that report to the school board. They will have to take some action and it will be April or May by the time you get all your wires laid. The starting of an open-window room with a selected list of children is the easiest way to begin the preliminary work for a regular open-air school. The temperature of this open-window room may be maintained between 50 and 60 degrees by artificial heat. It is best to use tinted cheesecloth if necessary at the windows, on account of the glare from the white cloth. Very little equipment is needed, and the children selected need not be tuberculous.

Most school budgets are made up in June. Remember that a school board is a body of citizens surrounded by public opinion. So, if your open-window room proves a success in the next few months, and you can show increased attendance and more promotions at the end of the year, fewer colds and sore throats, and other ailments that go with a closed room, then you can justify yourself in asking your school board for a permanent open-air school. It has been found that the open-window room has thus been an excellent way to pave the difficulties that occasionally rise in an open-air school. It will be necessary, of course, to secure all the co-operation you can from the school superintendent, parents, the public health committee of the women's clubs, the doctors, and your visiting nurse.

Just a word of warning. Most school boards and city councils in smaller places try to run local affairs on the budget system. If you go to them *after* their budget is made up, they have a good excuse to postpone matters a year. Therefore, now is a splendid time to begin any agitation with your council or school board for medical inspection, a nurse, or an open-window room, because your campaign can run on *before* instead of after the budget is made up.

Answered by Miss Edyth L. M. Tate.

Is More Money Needed?

TO THE EDITOR:

For the past two years in our city (population 35,000) we have supported a dispensary and visiting tuberculosis nurse by the sale of Red Cross Seals and private donations. Raising the necessary funds requires a great deal of work, so I am writing to ask if you can give me some new methods.

J. R., Mich.

If your nurse and dispensary have been operating for two years, they surely have demonstrated their value and necessity. Every effort should be made to have the city authorities support the work either under the supervision of your association or the Board of Health. This places the burden of expense where it belongs, i. e., upon the public.

Hospitals and Almshouses

TO THE EDITOR:

In selecting a site for our new tuberculosis hospital it has been suggested that part of the almshouse farm be used because (1) it is available without additional cost and (2) there would be a saving in conducting the two institutions together. Is this desirable?

A Worker, N. Y.

The control of tuberculosis is a public health problem and should not be confused with poor relief. Any apparent advantage obtained by locating a tuberculosis hospital on almshouse property is many times offset by limiting its usefulness. The stigma of pauperism is a great hindrance to effective tuberculosis control, and will keep patients from going to the hospital.

National Association Meeting

TO THE EDITOR:

Will you kindly give me the place and date of the annual meeting of The National Association? May others than members attend? What is the membership fee?

C. B., Ill.

1. May 7th, 8th and 9th, Washington, D. C.
2. Yes.
3. Five dollars.

Paying Dispensary Physicians

TO THE EDITOR:

Regarding our dispensary, the question has come up of whether it is advisable to pay a physician to conduct it or whether this money be used for some other purpose and the dispensary be continued under volunteer service.

Nurse, Ohio.

The general answer to this question is that dispensary service is far more apt to be effective and thorough if under the charge of one paid physician. However, there should be a staff of volunteers in addition. It is often necessary to begin dispensary work through volunteer service, but a paid physician should be placed in charge as soon as possible.

A TUBERCULOSIS QUESTION BOX

Suitable questions will be answered on this page each month. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," JOURNAL OF THE OUTDOOR LIFE, 289 Fourth Avenue, New York City. Please write only on one side of paper. Questions received before the 10th of the month will be answered the following month.

TO THE EDITOR:

1. Is pneumococcus vaccine a new administration used in tuberculosis? Has it any particular action on hemorrhage cases? What good might it do? Is it given in early or advanced cases? When the temperature drops from over 100 to normal, after its administration, is the drop usually lasting?

2. Can a patient's disease be arrested when the cough and expectoration still prevail, and sputum "positive"?

3. Which mouth washes would positively destroy all lurking germs in the mouth—as to make it quite safe for a dentist to work in?

4. Does a gain in weight (say 30 lbs.) prove a favorable symptom in tuberculosis of the lungs—other than simply building up the system?

5. Is "curing" or "exercising" outdoors in damp or wet weather advised by specialists rather than remaining indoors in dry air?

A Constant Reader.

1. Vaccines of various sorts have been used in the treatment of tuberculosis and are at best of only secondary or doubtful value. Their use is discussed in the JOURNAL OF THE OUTDOOR LIFE for March, 1912.

2. Such a case may be arrested in the future, but it is not so at the present time.

3. No mouth wash absolutely destroys all germs, but any of the ordinary alkaline antiseptic washes such as Listerine would do for your purpose.

4. Gain in weight is one favorable symptom, but it must be taken in consideration with many others in order to know exactly what the true situation is.

5. In many resorts patients stay out of doors and walk in all sorts of weather. Its desirability depends largely upon the individual patient. Sleeping out of doors is often thought to be undesirable on nights when the bed clothing would become damp or wet.

TO THE EDITOR:

1. Is it possible for an arrested case in good conditions to have a small hemorrhage?

2. (a) If yes, does that indicate that the disease became active again? (b) Is it of any grave significance?

3. Is a glass of beer taken with meals of any benefit? A Chicago Subscriber.

1. Yes.

2. It means a rupture of a blood-vessel. This may not lead to extension of the disease or renewed activity, but it certainly has important significance and such a symptom should never be neglected.

3. We do not believe that a glass of beer with meals has any real merit. The question involved is whether it does any harm, and this is dependent upon circumstances.

TO THE EDITOR:

Do the English Clinical Thermometers (Hick's for instance) have 98.4 for normal? I have just gotten one and I notice the normal mark is 98.4 instead of 98.6 as on the American made. Thanking you in advance, I am,

R. W. B.

Your observations are correct. Hick's thermometers are all marked 98.4 as normal.

TO THE EDITOR:

Had fever and high temperature for 2 months and 25 days; now temperature about normal. Three weeks ago had trouble with kidney or bladder, or both, yet undetermined —with passing of pus and blood from bladder, clots of blood first clogging outward passage of bladder. It may be made of tuberculosis germs there, or caused by constipation and straining, causing hemorrhage of bladder or kidneys—question which. What would be good for this? Pain in knee joints. Unable to stand but a few minutes at a time; body weak. Anonymous.

The symptoms you describe point strongly to the possibility of tuberculosis of the kidney or bladder, and it is unlikely that such symptoms could be caused by constipation or straining. We would strongly advise you to consult competent medical advice.

TO THE EDITOR:

1. Is a turkish bath followed by a cold plunge harmful to a person inflicted with tuberculosis?

2. If appetite and digestion are normal, what causes constipation.

3. Is food with plenty of salt good to eat?

Brooklyn, N. Y.

1. A Turkish bath is usually not desirable for patients with active tuberculosis.

2. Constipation is caused by many factors. More usual ones are errors of diet and lack of exercise. It is perfectly possible to have constipation without evidence of indigestion, but sooner or later some form of indigestion is apt to occur.

3. Almost all food needs some salt. Foods which are particularly salty, such as salted fish, etc., should usually be taken only in moderation.

TO THE EDITOR:

What can you say about "Dioradin"? I have been reading some pamphlets sent out by the Dioradin Co. of New York City. They make great claims, which are backed by several physicians who have used it. Kindly answer through the columns of the JOURNAL.

L. L. D., Saranac Lake.

Dioradin is a preparation which has been very largely advertised. This is done for commercial purposes and consequently its claims should be scrutinized carefully. We are informed that the best authorities in the treatment of tuberculosis are not convinced that the theory upon which this treatment is based is sound. We would advise anyone to obtain skilled medical advice before resorting to its use.

TO THE EDITOR:

Am writing to you regarding a "Lung Germine" episode, which may interest your readers.

A Mr. ——— of this city is suffering from tuberculosis and is being treated by Dr. ———. Dr. ——— did not exactly recommend "Lung Germine" to Mr. ———, but Mr. ——— had never heard of it until informed by Dr. ——— regarding it to the effect that it was being used by several people whom he knew and whom he named to Mr. ———, and he (Dr. ———) believed that it was doing them good.

In spite of your JOURNAL OF THE OUTDOOR LIFE article on this fake remedy which was placed in Mr. ———'s hands, he is still using it. The danger to him, however, is probably slight, for he is not relying on it for cure, but is following in the main the proper methods in caring for himself.

He states, however, that the bottle is marked to contain fourteen per cent alcohol just as the bottle in your article was reported to be marked. Why has this company not been prosecuted under the Pure Food and Drug Act, when analysis shows forty-two per cent alcohol? F. H.

The Department of Agriculture might be able to prosecute the Lung Germine Co. for the incorrect labelling of their bottles, but the company would gladly pay the fine that might be imposed, and would continue to do business in the same old way. A more drastic law than the Pure Food and Drug Law is needed to change a business of this character.

Unfortunately, too many physicians recommend proprietary drugs of which they know little or nothing. We are very sure that the doctor you mention does not know the facts concerning "Lung Germine" which have been published. We would suggest that you take steps to get this information to him.

TO THE EDITOR:

Will you please define the following terms: arrested case, no activity, closed case, apparently cured. A Reader.

The following is the recently adapted classification of the National Association for the results of treatment:

The following definitions indicate the furthest extent of disease and the greatest severity of symptoms that a patient can present and still belong to the stage defined. All patients beyond the incipient stage fall under the moderately advanced stage, unless the physical signs and the symptoms exceed those of the moderately advanced stage, when they should be classified as far advanced.

Incipient.

Slight or no constitutional symptoms (including particularly gastric or intestinal disturbance, or rapid loss of weight); slight or no elevation of temperature or acceleration of pulse at any time during the twenty-four hours.

Expectoration usually small in amount or absent. Tubercle bacilli may be present or absent.

Slight infiltration limited to the apex of one or both lungs, or a small part of one lobe.

No tuberculous complications.

Moderately Advanced.

No marked impairment of function, either local or constitutional.

Marked infiltration more extensive than under incipient, with little or no evidence of cavity formation.

No serious tuberculous complications.

Far Advanced.

Marked impairment of function, local and constitutional.

Extensive localized infiltration or consolidation in one or more lobes.

Or disseminated areas of cavity formation.

Or serious tuberculous complications.

Acute Miliary Tuberculosis.

SCHEMA FOR THE CLASSIFICATION OF SUBSEQUENT OBSERVATIONS.

Apparently Cured.

All constitutional symptoms and expectoration with bacilli absent for a period of two years under ordinary conditions of life.

Arrested.

All constitutional symptoms and expectoration with bacilli absent for a period of six months; the physical signs to be those of a healed lesion.

Apparently Arrested.

All constitutional symptoms and expectoration with bacilli absent for a period of three months; the physical signs to be those of a healed lesion.

Quiescent.

Absence of all constitutional symptoms; expectoration and bacilli may or may not be present; physical signs stationery or retrogressive; the foregoing conditions to have existed for at least two months.

Improved.

Constitutional symptoms lessened or entirely absent; physical signs improved or unchanged; cough and expectoration with bacilli usually present.

Unimproved.

All essential symptoms and signs unabated or increased.

Died.

No activity corresponds to the term "Quiescent." Of course this also applies to the arrested and apparently cured cases.

A closed case is one in which no bacilli get into the sputum from the diseased spot in the lung.

NOTES AND NEWS

Piorkowski Serum Not Licensed

Readers of the Journal who have been noting in the daily press recently numerous statements about the cure of tuberculosis with Piorkowski serum will be interested in the following statement of the United States Public Health Service:

"Information has recently been received from various sources to the effect that, through agents and printed circulars, the statement is being circulated that the Bacteriol, physiolog. Institut (Piorkowski Laboratories), Berlin, Germany, has been licensed by the Treasury Department for the importation and sale in interstate traffic of 'turtle tuberculin.' These statements seem to emanate from so-called Piorkowski Laboratories, located, or represented as about to be located, in various cities in this country.

"This statement is contrary to fact. After an inspection of the establishment by a representative of the Treasury Department and an examination of samples of the products at the Hygienic Laboratory of the Public Health Service, the Bacteriol. physiolog. Institut (Piorkowski Laboratories), Berlin, Germany, was refused a license by the Treasury Department for the importation and sale of their products in interstate traffic.

"Under the act approved July 1, 1902, regulating the sale of viruses, serums, toxins, and analogous products in interstate traffic, such preparations applicable to the prevention and cure of diseases of man may be imported without license, provided they are not sold or intended for sale but for scientific experiments.

"The above-mentioned act requires that each package of virus, serum, toxin, antitoxin, or analogous product must be plainly marked with the proper name of the article contained therein, and the name, address, and license number of the manufacturer. Since this provision is strictly enforced, no difficulty should be experienced by anyone in determining whether a particular product has been propagated in a licensed establishment.

"Persons or firms engaged in the sale of unlicensed products in interstate traffic are liable to a penalty consisting of a fine not exceeding $500, imprisonment not exceeding one year, or both such fine and imprisonment in the discretion of the court."

Massachusetts Tuberculosis Recommendations

Recommendations of unusual value and interest have been presented to the Massachusetts legislation, by a special recess committee of that body appointed last year to investigate the present means and methods employed in checking the spread of tuberculosis and to determine what further action, if any, should be taken. The committee had a number of sessions during the summer and fall and called into consultation the best experts in the country to advise on the problem. As a result of their deliberations, they make the following recommendations:

1. The need of a central authority to supervise the control of tuberculosis is apparent, and has been pointed out by commission after commission. This committee recommends a single headed "Department of Diseases Dangerous to the Public Health," with mandatory powers, under the management of the State Board of Health. It seems advisable to use the phraseology as above, rather than simply "Department of Tuberculosis," for the reason that tuberculosis is so declared by the State Board of Health, and because the construction of hospitals, sanatoria, quarantine, and inspection are so similar that they should be considered at the same time if economy is to rule. Moreover, this committee believes that it will be but a few years before the ravages of syphilis will compel public provision.

2. The authority of the State Board of Health should be extended to examine all hospitals, sanatoria, asylums, homes, prisons, and hospitals handling diseases "dangerous to the public." which includer tuberculosis; and this committee so recommends.

3. This committee has been appalled by the revelations of incompetency and weakness on the part of some local boards of health, and by the confusion of authority between them and the State Board of Health. Responsibility should be clearly placed on the State Board of Health, and it should be given authority to supervise the work of local boards.

4. The presence, in sanatoria, of refractory and incorrigible tuberculous patients is the despair of superintendents and so serious a menace to the entire system, and to the health of the whole community, that this committee recommends the building of a state hospital where such cases may be segregated. The dismissal of incorrigibles only spreads the plague.

5. So many communities complained to this committee of financial inability to build tuberculosis hospitals that it is recommended that the debt limit be extended for this purpose so that the hospital law on the Statute Books may be complied with.

6. The State Board of Health should be given power to define the dispensary law

and standardize as well as inspect dispensaries; also to provide a plan for a statewide system of visiting nurses service; also to provide supervision of all plans for the adequate ventilation of school buildings.

7. In accord with the repeated recommendations of the State Board of Health, section 39 of Chapter 75 of the Revised Laws, prohibiting hospitals within 100 rods of an inhabited dwelling in an adjoining city or town, should be repeated, inasmuch as it has been demonstrated that this statute works to the detriment of the public health.

8. This committee, after exhaustive research, has reached the conclusion that one institution, preferably that at Westfield, should be set apart for women and children in order that a beginning, at least, may be made in the proper separation of the sexes.

9. In accord with the recommendation of the Attorney-General, the statutes authorizing the courts to order the segregation of persons afflicted with contagious diseases should be clarified.

January, 1914.

Box Cars For Tuberculosis Cottages

The utilization of box cars for the construction of patients' shacks or cottages has been carried out upon unique lines and with most satisfactory results by Dr. Geo. Thomas Palmer at the Springfield (Ill.) Open Air Colony.

According to the plan employed, two ordinary freight cars are made to furnish space for a six-patient sleeping porch and for living room, lockers and dressing room. The two box cars are placed side by side and firmly bolted together through the heavy sills and joists. The front car which is to serve as sleeping porch is then sawed down to the heavy grain sills, the perpendicular joists being left in place but the diagonal joists or braces being moved with the siding. The sills are then neatly boxed and the open space covered with copper screen. This furnishes a sleeping porch about 9 feet in width and 36 feet in length. The inner side of the porch car is entirely removed and the material obtained from it is used to furnish part of the sheeting for the bungalow roof. The back car which is to serve as living quarters is divided into wash room 8 by 9½ feet in size, a living room 8½ feet by 20 feet and the remaining room is given over to six lockers.

Box cars are provided with double roof, the outer one of board and the inner roof or ceiling of metal. The outer wooden roofs of the two cars are removed and used as sheeting on a bungalow roof with broad eaves which is complete for the two cars and which entirely changes their outline. Discarded box cars are usually unsightly on their interior, but four or five heavy coats of paint will entirely cover these defects. The floors, however, are usually badly marred and consequently the floors of both cars were covered with new matched flooring, finished in oil and aiding materially in disguising the appearance of the two separate cars, the floors being continuous from one car to the other.

Large windows opening outward with hinges above are plentifully distributed throughout the living room car affording ample light and ventilation and the open window acting as an awning giving considerable protection from rain. Portable windows are provided for the east and west

A BOX CAR COTTAGE.

ends of the cottage but the south or main exposure is left constantly open and is protected from rain and high winds by sliding khaki curtains. The cottage shown in the accompanying illustration is proving thoroughly satisfactory in severe winter weather and this with the little cost of construction make it attractive to pioneer institutions.

At the Open Air Colony rejected box cars were purchased for $20 each and were moved and placed on the ground at an additional cost of $25 each, making the total cost of two cars set in position $90. Remodeling, painting and equipment cost approximately $200, making the total cost of a satisfactory six patient cottage not over $300. The cottage is lighted with electricity, heated with stove, screened with copper screen and connected with water and sewer.

The distinct advantage in the utilization of box cars is the sturdy construction of the cars. All of the beams and uprights are of oak reinforced with iron rods one inch in diameter, the lumber of which the cars are made is heavy and well matched, well seasoned and grooved. The car rests upon solid sills running the full length 8 by 12 inches in size and reinforced with iron bolts and rods. The original car floor is made of two-inch planks and gives a splendid foundation for the more finished flooring. With present cost of material and lumber, Dr. Palmer estimates that a building as satisfactory and as well constructed

could not be erected for less than $500 or $600.

Campaigning in Kentucky

Working under the provisions of the law by which it was created, the Kentucky Board of Tuberculosis Commissioners has succeeded in securing favorable action on the question of local hospitals by referendum votes in three counties and has stirred up interest in several others with this end in view.

In Fayette County, of which Lexington is the county seat, the vote for the hospital was 4½ to 1. Preceding the election a vigorous campaign of education with exhibits, lantern slides, motion pictures, lectures and newspaper publicity reached almost every voter in the county. In Henderson County, although an organized opposition was encountered, the hospital proposition carried 6 to 5 after a rousing campaign such as had never before been seen in that vicinity. In Christian County, largely rural, with an abnormal death rate of 348.3 per 100,000, a spectacular educational campaign produced a favorable vote of 3 to 2.

As a result of the work in Mason County, the tuberculosis league at Maysville has been rehabilitated; a visiting nurse has been employed, the city making an annual appropriation; medical inspection of school children has been begun and complete change of view on public health problems has been manifested in the county.

To Reorganize Chicago Hospitals

In an attempt to reorganize Cook County's institutional work, A. A. McCormick, Chicago's new and progressive head of that department, has appointed a committee to study the tuberculosis hospitals operated by the county. The committee consists of Dr. Theodore B. Sachs, Chairman; Dr. Ethan A. Gray, Dr Stephen R. Pietrowicz and Mr. James Minnick, Secretary. In a comprehensive report on conditions as they found them and recommendations for future development, the committee states that the conditions in these institutions have remained about the same through successive administrations, and that in order to fulfill their functions of drawing from the community the sources of tuberculous infection, administrative, medical, nursing and dietary regimes of said institutions must be revolutionized. The report recommends one physician for each 50 patients, one nurse for each 10 bed patients and one nurse for each 15 ambulatory patients. The recommendations are in accordance with the minimum requirements recommended by the National Association for the Study and Prevention of Tuberculosis.

Migration of Consumptives

The U. S. Public Health Service has undertaken an investigation of the migration of tuberculous persons in interstate traffic. Officers of the Service are now making studies of this subject in California, North Carolina and Texas. The object of the investigation is to determine the extent of such migration, to ascertain its effects on the traveling public, and its influence from economic and public health standpoints on the communities to which tuberculous persons resort. The work was undertaken at the suggestion of the Texas Public Health Association. The Service is also preparing to undertake a thorough and systematic investigation of conditions relating to the prevalence and prevention of tuberculosis in the city of Cincinnati, working in co-operation with the Anti-Tuberculosis League of that city.

North Carolina State Sanatorium

At the recent special session of the North Carolina legislature the State Sanatorium located at Montrose was taken out of the hands of the board of managers who had previously conducted it and placed directly under the supervision of the State Board of Health. The new management of the sanatorium have completely rehabilitated the institution and have appointed a new superintendent, Dr. Wilson Pendleton, formerly of Hope Farm Sanatorium in Delaware. The institution represents an investment of $50,000. It is located on a tract of 1,300 acres in the pine and sand belt of Southeastern North Carolina. It has accommodations for 50 patients and will be enlarged to take care of 75.

New York State Hospital Campaign

After four years of agitation, Broome County (N. Y.) is to have a tuberculosis hospital. By a vote of 23 to 5 the supervisors decided to take over the Mountain Sanatorium which was the property of the Binghamton City Hospital and conduct it as a county institution.

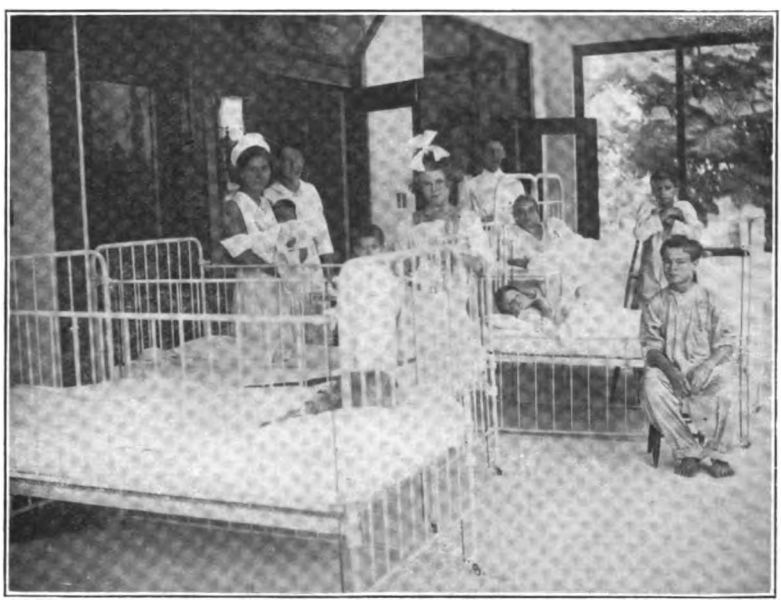
Of 57 counties in the State, outside of Greater New York, 29 are now provided with tuberculosis hospitals or have definitely assured their erection. Only three of the largest 25 counties are not included in this number. Counties without hospitals are being actively canvassed and it is expected that several more will be brought into line during the year 1914.

An Educated Drug Clerk

A good example of the results of the Educational Campaign against Tuberculosis comes from Ithaca, N. Y. In that town a man recently asked at one of the largest drug stores for a cough medicine. The clerk looked at him a moment and referred him to the Tuberculosis Dispensary. On examination he was found to have tuberculosis.

Texas Seaside Hospital Open

The Walter Colquitt Memorial Children's Hospital at Galveston (Tex.) has been opened and is the second seaside hospital in America for the treatment of children with tuberculosis of the joints and glands. The hospital was built at a cost of about $15,000 from the sale of Red Cross Seals. The funds for its maintenance were raised from the sale this year.



A WARD IN THE NEW TEXAS SEASIDE HOSPITAL.

Negro Tuberculosis Work in Charleston

An interesting anti-tuberculosis movement among the negroes of Charleston (S. C.) is being developed under the direction of Charles S. Harleston. Following out a plan outlined several years ago by Dr. C. P. Wertenbaker of the U. S. Public Health Service, an attempt to organize the colored people of Charleston for tuberculosis work through the churches was made in 1909. Up until about a year ago the movement lacked leadership, but within the last few months the membership has been greatly increased and a systematic work has been begun. At present there are twelve church leagues affiliated with the central organization, numbering nearly 2,000 members.

A fund of nearly $400 has been raised as a nucleus for the establishment of a sanatorium for negroes and a plot of twelve acres has been offered to the society. It is hoped to begin building this coming year. Most of the members of the leagues are very poor, and consequently the amount raised represents no inconsiderable sacrifice. Contributions from interested white or colored persons outside of Charleston will be welcomed. Another significant work undertaken by the league is their attempt to educate, particularly the rising generation, on the subject of tuberculosis. Lectures, sermons and the distribution of literature have been undertaken with good success. The League also participated actively in the Tuberculosis Day and Red Cross Seal campaign.

Reinspiration of Expired Air

Under ordinary conditions of breathing some of the expired air must be drawn back again into the lungs. A few experiments to determine the proportion of the breath that is reinspired have been made during the last fifteen years, but no really thorough study of the question was carried out until the recent work of Crowder, a discussion of which is given in a recent number of the Journal of the American Medical Association. This investigator has studied by ingenious methods the effect of change of position, body motion, different types of breathing and different temperatures, and in addition has determined the conditions that obtain on the sleeping porch and in the open air. His conclusions are that (1) a person remaining quiet and indoors will immediately rebreathe from 1 to 2 per cent of his own expired air; (2) when lying in bed the percentage is higher, rising from 4 to 10 per cent, depending on the position

assumed while sleeping. "Nor does sleeping in the open insure pure air for breathing. The same influences here produce the same relative results that they do inside. When one buries his head between pillow and bedclothes for the sake of warmth, reinspiration is inevitable, and it is not necessarily small in amount."

Secrecy a Crime

"The worst things you can do for a consumptive is to keep him from knowing that he is a consumptive," says a press bulletin of the North Carolina State Board of Health. "We used to think that telling folks the truth about themselves when they had consumption would scare them to death. Somehow some of them found it out in spite of us and instead of being scared to death they set about taking the cure and got well. Most of those we didn't tell found it out too late or aggravated their cases through ignorance and landed in consumptives' graves in a short time.

"Furthermore, a consumptive who does not know that he is a consumptive is a menace to others and a really dangerous person to be around. On the other hand, a careful consumptive is a safe person with whom to live."

What North Dakota is Doing.

The North Dakota Anti-Tuberculosis Association has come to the front with a monthly bulletin entitled "The Pennant," an eight-page publication. The work of the association is broadening and is being felt in every part of the State. Recently a "Better Babies" Contest was held with great success. The association has also been the strongest support of the State Sanatorium. Through its efforts that institution was established and as a result of its work it has been fully equipped and kept running. Mrs. Fannie D. Quain of Bismarck is the leader of the anti-tuberculosis forces in North Dakota.

Wilmington's Sanatorium

The labors of a little group of women connected with the Red Cross Chapter of Wilmington (N. C.) have at last been rewarded by the opening of a new sanatorium on the outskirts of that city. The sanatorium will contain twenty beds when completed, with accommodations for white and colored patients. Under the leadership of Mrs. Cuthbert Martin, the Wilmington Red Cross Chapter has blazed a pioneer trail in tuberculosis work in North Carolina. It has established a thorough-going visiting nurse work, a systematic educational campaign and a sanatorium.

Movies on Open Air Schools.

Motion pictures to illustrate the open window and fresh air treatment of school children are being used by Dr. Walter W. Roach, of Philadelphia, in an appeal for classes and schools of this character. His films show a class-room full of pupils at physical exercises and study work. The pictures were taken at the Alexander Dallas Bache School, in Philadelphia, where the children wear extra sweaters and hoods, woolen gloves and blankets and sit in the cold, fresh air all winter long, without any artificial heat in the rooms. Dr. Roach, who is a supervisor of School Medical Inspectors, has been making some interesting studies in this field. He finds that where normal children are allowed to study in the open air they maintain their grades better, and suffer less from epidemics of colds and other diseases. Similarly subnormal and backward children respond very quickly to the vitalizing effect of fresh air when they are taken out of the ordinary school room. Arrangements may be made with Dr. Roach for the rental of his motion pictures.

Post-Graduate Course in Tuberculosis

In an interesting report recently issued, the Bruchesi Institute of Montreal gives an account of a post-graduate course on tuberculosis given for physicans at the Institute last summer. The course was undertaken somewhat as an experiment, but proved successful beyond expectation. The lectures were divided into series, each series occupying two weeks with four hours work daily. The entire work was under the direction of Dr. Eugene Grenier. The courses will be continued next summer.

Delaware and the Negro

How the State of Delaware is providing for its negro consumptives is described in the "Fourth (1912) Annual Report of the Delaware State Tuberculosis Commission," Dr. Harold L. Springer, Secretary, Wilmington, Del.

In April, 1913, $10,000 was secured from the Legislature for erecting an institution for negroes with an annual appropriation of $5,000 for maintenance. Complete records of the county dispensaries are embodied in the report.

A Unique Scheme in Indiana

Sixty thousand copies of "Indiana's War on the White Plague" have been printed by the Indiana Association for the Study and Prevention of Tuberculosis, Indianapolis. This sixteen-page leaflet giving a history of the fight in Indiana also contains seven full-page half-tone illustrations.

The pamphlet is unique in that the front and back covers are left blank to be filled in with such local material as is considered suitable by the city and county organizations which distribute them.

NOTES FROM THE FIELD

Four members of the "Big Brother" movement have "adopted" four boys to be their little "brothers" at the Rochester Open Air School.

* * *

The New London (Conn.) Anti-Tuberculosis Society gives each member a card enclosed in attractive leather case.

* * *

The first open air school in Columbus (Ohio) was recently opened with twenty-five pupils. It is expected the enrollment will be doubled very shortly.

* * *

The City Council of Parkersburg (W. Va.) has increased the appropriation made to the local anti-tuberculosis society from $350 to $500 for 1914.

* * *

Governor Dunne, of Illinois, has issued a proclamation barring from that State cattle that are not certified to be free from bovine tuberculosis, except such cattle as may be used for immediate slaughter.

* * *

The tuberculosis dispensary building of the Houston (Tex.) Anti-Tuberculosis League has been completed and is now being used.

* * *

One of the last acts of Health Commissioner Lederle of New York City was the opening of a permanent museum and exhibit of health showing the work of all branches of his department.

GLEANINGS FROM TUBERCULOSIS LITERATURE

Massachusetts Campaign Summed Up

Material for a liberal education in Public Health matters is contained in the "Sixth Annual Report of the State Inspectors of Health of Massachusetts, 1912," issued by the State Board of Health, Boston, Mass. The 72 pages of the report contain classified and detailed information covering the broad field of work of the inspectors, and their methods of procedure. Copies of Massachusetts' up-to-date tuberculosis hospital laws are included. The law states in essence that each city shall, and each town may, and upon request of the State Board of Health, shall establish and maintain constantly within its limits one or more hospitals for the reception of persons having small-pox, diphtheria, scarlet fever, tuberculosis, or other diseases dangerous to the public health.

The relation of the State Inspector to the tuberculosis problem is contained in a separately printed paper entitled "The Suppression of Tuberculosis" delivered to the Inspectors by Hiram F. Mills, a member of the State Board of Health. The author reviews some of the more common phases of the campaign, and takes up several of the finer and more unusual sides of the question. He gives great encouragement

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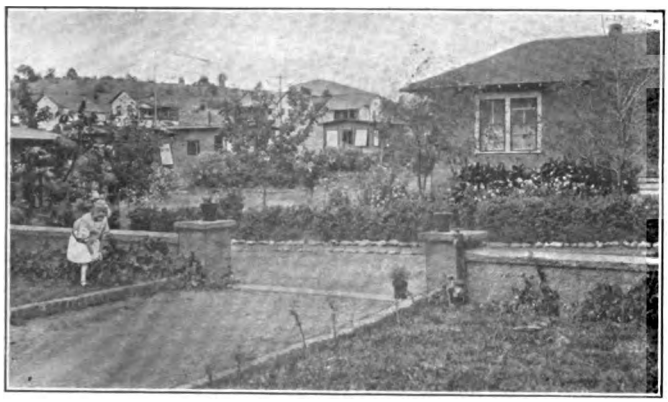

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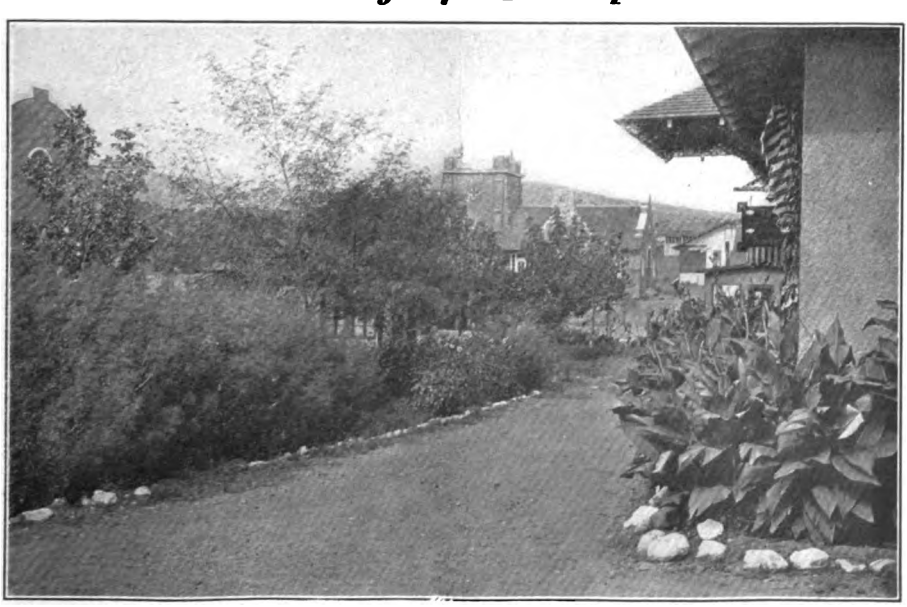

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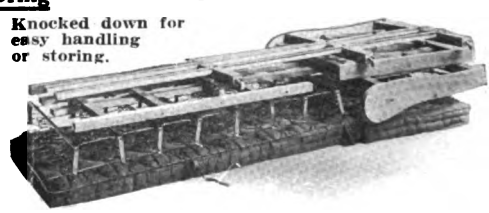

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Vol. XI APRIL, 1914 No.

Journal of the OUTDOOR LIFE

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Vagrancy and Tuberculosis

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—*Brown*

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PUBLISHED MONTHLY
IN THE INTEREST OF THE ANTI-TUBERCULOSIS CAMPAIGN
289 FOURTH AVE., NEW YORK

Journal of the Outdoor Life

VOLUME XI APRIL, 1914 No. 4

Contents

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THE QUESTION BOX EDITOR will answer without charge suitable questions in regard to Tuberculosis, and will give information about sanatoria for the treatment of this disease. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," JOURNAL OF THE OUTDOOR LIFE, 289 Fourth Avenue, New York City.

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PROTECTING THE HOG

Vol. XI APRIL, 1914 No. 4

Journal of the
OUTDOOR LIFE

TUBERCULOSIS AMONG HOMELESS MEN AND IN LODGING HOUSES

BY CHARLES B. BARNES,
JOINT APPLICATION BUREAU, NEW YORK CITY.

The common lodging houses of Greater New York vary slightly in number from year to year. At the present time there are over one hundred and thirty in the Greater City and a few over a hundred in the Borough of Manhattan. These one hundred houses in Manhattan have accommodations for 17,500 men.

The lodging houses in this city are either of the dormitory or cubicle kind. Or they may be a combination of both. The two upper floors may be dormitories, while the two lower floors are cut into cubicles. In dormitories the beds are placed in rows with narrow passageways between—the law specifying the space of two feet. The cubicles are small box-like affairs, large enough to contain a single bed and a locker. Thin wooden partitions are run up about seven feet high and are cut away at the bottom about a foot. Across the top of the cubicles is run light wire netting, which prevents the men from climbing from one to the other. The alleyways between the cubicles are generally very narrow.

Our cheap lodgings today are bad, but they are infinitely better than the so-called lodging house cellars of forty years ago, when the number of lodgers was greater than today and when men, women, and children were allowed in them. There has been for a number of years an intermittent contest between the city authorities and the Lodging House Keepers' Association, with the result that there has been a gradual betterment of the horrible conditions prevailing in former years. This is particularly true since about 1905. In the early part of this year a sanitary inspector of lodging houses, selected by the Joint Application Bureau, was appointed by the Department of Health. This man did very good and effective work, but he was discontinued after about four months.

One of the reasons for the unsanitary condition of the lodging houses of today is that the greater number are conducted in old buildings, very few of which were originally constructed for lodging house purposes. There are some instances where lodging houses have been conducted in the same buildings for fifty years. There is an oppressive, "funky" air about these places which no cleaning seems able to remove. No radical improvements in the way of ventilation and sanitation can be made in these buildings except at a prohibitive cost. The result is that odors and gases escape from the toilets into the sleeping quarters. Many of the toilets are dark, and formerly ventilation was bad, but this has been lately remedied in most cases. Bathing facilities are not very adequate. This lack is increased in summer time because in many houses hot water is provided only once or twice a week. Windows are the only means of ventilation. A rule of the Department of Health requires that windows shall be kept open during certain daylight hours, so that the beds may be aired, but nothing is said about the sleeping hours. The clerks all tell how impossible it is to keep windows open at night. The men (especially those sleeping near them) will close the windows as soon

as the watchman's back is turned, seeming to have a dread of the cool fresh air. The only way to keep windows open is to nail blocks under them. Where this is done it often means the men will not come back and thus the place loses custom. A few of the houses are heated by steam, but usually they are heated by hot air or directly by stoves and in most cases are lighted by gas. Dirt collects in many places where it cannot be or is not removed by the sweeping or scrubbing, such as in the cracks of the old flooring, around and behind clothing lockers when they are placed close to the walls, and under the molding and in sharp corners. These clothing lockers, located near each bed, are generally built of wood, perfectly solid and with no ventilation save that of the keyhole. It must be left to the imagination what sort of places these are when filled with foul and dirty clothing. Beds are of wood or iron. The larger number are single beds, though there are still 700 double-decker beds in the lodging houses of the city. These are being gradually eliminated. No permits for houses with double decker beds has been granted since 1910. The mattresses are supposed to have a water-proof covering, but an investigation made a little over a year ago showed that more than half of them were in bad condition. The same investigation revealed that only about one-half the beds could be called clean. Blankets were frequently found to be dirty and greasy. It is very difficult to keep vermin out of these beds, and when they get inside the waterproof covering of the mattresses, even fumigation will not remove them. In the dormitories beds are frequently placed too close together and too close to the walls. Dry sweeping still prevails at certain times, although the usual practice is to mop up the floors in the morning, especially where there is any spittle on the floor. If a broom is used, often it is first dipped in a pail of water and the floor thus sprinkled.

It has been claimed by some of those whose duty it is to enforce sanitary law that if there was a strict enforcement, fully fifty per cent of the lodging houses would go out of business, and that the enforcement of adequate rules would be fought by the Lodging House Keepers' Association, which would entail a long conflict in the courts, extending over a period of years. As an excuse for lax enforcement of law this seems good.

The city lodging houses furnish a large percentage of the tubercular cases in Manhattan. We have compiled data gathered for us by the Department of Health. This data shows that the lodging houses with accommodations for only 17,500 people furnish in hospital and clinic combined 1,504 cases, or 8.8 per cent of the total tubercular cases in Manhattan, although the lodging house population is only 0.75 per cent of the total population. At the time these figures were gathered there were 17,123 tuberculous cases in the Borough of Manhattan with a total population of 2,331,542, showing that only 0.74 per cent of the whole population in Manhattan is tubercular, while the figures from the lodging houses, at the same time, showed that 8.6 per cent of the men were afflicted. This shows that the lodging house population is over 11 times as tubercular as the average population. It should be borne in mind that in making these calculations it has been assumed that the lodging houses contained 17,500 men, though in reality this is the number they could accommodate if they were always full.

When one considers the lax rules of the lodging houses, it can be seen that they must be great spreaders of tuberculosis, through their bad sanitary conditions, even if they are not actual breeders of the disease.

In connection with the figures just given, it was found that the total of cases in this Borough, of those giving only addresses of friends, of those claiming no home at all, and of those from lodging houses was 2,660. Thus the men who sleep in parks, hallways, wagons, missions, and the back rooms of cheap saloons, together with those from the city lodging houses, furnish 15.5 per cent of all the tubercular cases in the Borough.

It is easy to see why so many men with tuberculosis gravitate to the cheap lodging house. When the friendless or near-friendless man gets so weakened by his disease that he can earn little or no money, he is perforce compelled to go to a cheap place. Here he may remain until a clerk notices his condition and tells him to go to a clinic. Very few places will refuse a man because he has tuberculosis. Even where the case is very evident, a kind-hearted clerk will take him in over-night, reasoning that if he does not the man may be compelled to "carry the banner," which in the Bowery dialect means walking the streets all night. Cases have been known, however, where a man refused to go to a clinic, the clerk would inform a policeman.

When our lodging house man does reach a clinic or wherever he is sent for examination, he is frequently in a weakened, meek and shy state and can be shunted around very easily. He often does not follow directions given him because he does not understand them. He may be given some medicine and sent back to his room. He sometimes does not return to the clinic. He is afraid or he refuses because he thinks he has received brusque treatment.

But the case may be so bad that he is sent at once to a hospital. Here he gives the addresses of his last lodging places. In the past two weeks or more he may

have been in three, four or even more different lodging houses. The visiting nurse later goes to these places and finds out that the man has stayed there. She then instructs that the bed or room used must be fumigated. In the interval, however, this bed or room may already have been occupied by several other men. If it is a bed in a dormitory, it is taken to the "hospital room," with which nearly every lodging house is provided. This room can be tightly closed and a sulphur candle is burned, thus giving the bed a fairly good fumigation, as far as sulphur fumigation is of benefit. If the man has occupied a room, or, rather, a cubicle, it is closed as well as possible with newspapers and a sulphur candle burned in it. This at the best is not a very successful disinfection, as it is difficult to tightly close the open top and bottom of the cubicle. Later the nurse returns and the clerk or proprietor exhibits the wick of the sulphur candle as evidence that the fumigation has been done.

In the meantime the tuberculous man remains, say, for a time in Bellevue and then probably is trarsferred to the Metropolitan. Here he may remain until he has regained his strength. When this convalescent man comes from the hospital he is without funds and not in the best condition to work. The cheap lodging house is the only place he can go. Here, if he is able to work at all, he picks up such odd jobs as come to the Bowery man. Often his work is in bakeries or restaurants where he handles food. Naturally he eats in the cheap restaurants of the section. It is the aim of these places to furnish food that is as bulky and "filling" as possible. Five and ten-cent meals must, at least, give the patron a feeling of being filled up. All the articles of food are of the cheapest grade, often poorly cooked, and except in the case of some of the meats, not high in nutriment. Subject to exposure and thinly clad, drinking liquor to spur on a system which is undernourished, the lodging house man with tubercular tendencies is soon on the way to be again a subject for the hospital or sanatorium, and the same round will be again repeated. In the meantime he is spreading the germs of his disease all about him.

Here the spreading of the disease takes place mainly, of course, through the sputum. Spittoons and their use are sore subjects in the lodging house. At one time there was talk of compelling the placing of a spittoon at every bed in a dormitory. This was vigorously objected to by the Lodging House Keepers as not being practical. The method which obtains in actual practice is to put spittoons throughout the dormitory in places where they are most likely to be used and yet not be kicked over—such as the corner at the head of the stairs or any dark corner or spot where the men might spit. In this way one spittoon is used for about every eight beds. It means that if a man wishes to use a spittoon after lying down he must get out of bed to do it. In reality he spits on the floor or on the covering of his bed. Then, too, a man often removes all his clothing on going to bed (to keep it free from vermin), wraps the coverings around him, pulls the blanket over his head and breathes through it all night, thus making of his bedding a carrier of his disease.

As we have already said, the lodging house as a whole is likely to be a breeding ground for tuberculosis, on account of its lack of light and air and the general uncleanliness. But it is in the cubicles where the greatest danger lies. They are a rich field for the propagation of germs. They have no artificial light and have very little natural light. The ventilation is poor and the opportunity for the collection of dirt is great. A shallow pan is placed in each room for use as a spittoon, but often when the men enter the dark cubicle, this is kicked under the bed where it remains. The men spit on the floor and on the bed coverings, but worst of all they spit out into the air. The room is so narrow the spittle lands on the wall. The next morning whatever may have gone on the floor is mopped up. The walls, however, are rarely washed and this gives the sputum collected here an opportunity to dry. The clothing of men going in and out as well as the bed clothing when it is thrown about, brush this dried sputum into the air.

All that has been said here about lodging houses applies to them as a whole. There are, however, a few notable exceptions, where cleanliness and good sanitation prevail as far as the present lodging house construction admits.

We have omitted saying anything about the deadly moral atmosphere of these places, as this would fill a chapter of its own. The tubercular patient requires cheerful and uplifting surroundings. He does not get such surroundings in the lodging houses.

If time had permitted, we should have liked to tell the experience of one or two lodging house men in going the rounds of hospitals and clinics. As it is we have only been able to indicate the great prevalence and danger of tuberculosis in the lodging houses, of the bad sanitary condition of these houses, and of the often inadequate treatment received by the lodging house man.

CONSUMPTIVE "REPEATERS"

BY MISS SARAH POTTER, NEW YORK CITY.

The large proportion of homeless men in the tuberculosis wards of Bellevue Hospital and the impossibility of preventing their entering and leaving the institution at will is one of the most discouraging problems which has to be dealt with by the officers of the hospital.

The waste of physicians' time in the repeated examinations and the unnecessary routine work of recording histories, filing, registry, etc., is in itself a serious item. This falls entirely on the ward service, since after the first history is taken in the clinic, patients are referred to the Tuberculosis Hospital Admission Bureau and from there directly to the wards of the hospital. If this vagrant class were adequately provided for elsewhere, the congestion in the wards would not only be reduced, but better care could be given the type of patient who has a fair chance of being brought back to health and usefulness and who so often has others dependent on him. Anyone who has visited the wards when every bed is occupied and from three to seven springs are in use (by no means an unusual situation) would realize the gravity of the condition created by the unchecked and repeated admission of these men, which the hospital is powerless to prevent.

Since August, 1911, a careful effort has been made to ascertain the exact number of this type and the frequency with which their names reappear on the hospital records of Bellevue. In 1912 the total number of admissions was 3,565, of whom 2,339 or 86 per cent were known to be homeless. Of these, 203 refused transfers to other institutions preferring to return to their ordinary haunts, for the most part, Bowery lodging houses of the lowest type. In 1913 up to Nov. 1st, 3,128 patients were received and 1,570, or 50 per cent, were admittedly homeless, 292 of them again refusing transfers. From certain indications it would seem that the fear of detention has something to do with the lower number of admissions and the increased number of those refusing transfers. These men, many of them alcoholics, are nearly all advanced cases and it must be borne in mind that they are grave sources of infection to the community, taking as they do no precautions to prevent the spread of their disease when at large.

In March, 1913, a special record of "repeaters" was kept. Out of a total admission of 418, there were 90 men and 3 women who had been admitted more than once. Twenty-eight of the men had been in Bellevue four times previously, 34 had been there twice before, and 28 at least once before. In the intervals between these admissions it is probable that every available tuberculosis hospital in the city had been visited more than once, as will be seen from the following cases which have been picked out as typical examples:

Thomas A., aged 41; no occupation. In an advanced stage of tuberculosis. The record was taken from September 30, 1910, to June 6, 1913. Of this period of 2 years, 8 months and 6 days, 1 year, 3 months and 24 days were spent at different hospitals, with records of 33 admissions in all. He was in Bellevue 14 times, the Metropolitan 10 times, St. Vincent's 3 times, St. Joseph's 3 times, Riverside twice and Seton once. The longest stay was 100 days at Riverside; the shortest, one day at Bellevue. Another record of the Department of Health shows that in the intervals he stopped at four different lodging houses. The longest period between visits to hospitals was 32 days. There were four periods out of hospitals of approximately three weeks each, five of about two weeks, six of about a week; six of less than a week, and four of one day only.

The case of John C. is equally striking. This man was an early second stage case with positive sputum at the time his known hospital history begins, on September 19, 1910. Every time he re-entered Bellevue he was intoxicated and there was always difficulty in making him obey instructions as to sputum, etc. He has been in the Bellevue tuberculosis ward six times, alcoholic wards twice, Metropolitan five times, St. Vincent's twice, Riverside three times,

St. Joseph's twice, and House of Relief once, making a total of 19 admissions. He has great vitality, and though a heavy drinker, a stay at the hospital with care and proper nourishment gives him back sufficient strength to return again and again to his usual occupation of haunting saloons, where he obtains food and drink by doing odd jobs and by begging. He has no relatives and lives usually at the Olive Tree Inn, a cheap lodging house, spending the larger part of his time in summer in the parks. He chews tobacco and spits incessantly, and his low standard of personal habits make him a menace to all with whom he comes in contact. His last discharge was from the Metropolitan on October 15th. He is at present at large, and though an advanced second stage case with cavity has probably some time to live.

Another case is that of Thomas B., aged 39. He is a truck driver when working, but is a typical wanderer. From December 22, 1911, to September 28, 1913, a period of 1 year, 9 months, 6 days, he has been admitted to different hospitals 16 times: Bellevue seven times, Metropolitan four, St. Joseph's three, and Riverside two. In September, 1913, he was sent to Riverside as a forcible detention case. He escaped two weeks later and in a little more than a month was back at Bellevue. At present he is in the Metropolitan. He is a drunkard and presents no more redeeming qualities than the others mentioned.

Daniel B. has a recorded hospital history from March 20, 1910, to October 20, 1913, showing 20 admissions to tuberculosis wards and three to alcoholic wards. He always came to Bellevue under the influence of liquor and was generally violent and abusive, though when sober he was capable of doing orderly duty. When out of the hospital he works as a waiter from time to time in cheap restaurants, but he usually hangs round saloons and lives by begging. Any clothing given him is always pawned, and every effort to help him back to self-respect has been unsuccessful. He is now an advanced second stage case and has an abscess on the lung, but seems still able to continue his usual round.

The extraordinary vitality of these men is a curious feature of the problem. Though we know them to have defied every law of health for the two years or more they have been under observation, they are able to go back periodically to what is their usual mode of life with very little visible depreciation of strength.

These examples are no exceptions. As I have just shown 90 such cases passed through Bellevue Hospital in one month to continue the endless round from ward to lodging house and back to the street, frequently via the police station and the workhouse. Of course among the 3,909 cases of homeless men recorded since January, 1912, there are some chronic second stage cases who have still possibilities and a desire for self-support. For these an industrial hygienic institution where their labor could be made use of and paid in proportion to its worth would be of incalculable value. But the two great needs at present would seem to be the protection of the public from contact with these infectious cases and the hospitals from the useless expenditure of time, labor and money involved in the incessant admissions, transfers and discharges at present necessary.

DIFFICULTIES ENCOUNTERED BY HOSPITAL AUTHORITIES IN DETAINING HOMELESS CONSUMPTIVES

By ROBERT J. WILSON, M.D.,
SUPERINTENDENT OF HOSPITALS, DEPARTMENT OF HEALTH, NEW YORK CITY.

In order to gain a clear understanding of the difficulties that beset the hospital authorities, Riverside Hospital, New York Health Department's Hospital for advanced cases, it will be necessary to state the manner of their admission. This is accomplished in two ways: first, through the Tuberculosis Hospital's Admission Bureau, and second, by forcible removal from their homes.

If admission is made through the Bureau, it may be that the applicant has voluntarily applied or, reports having been filed that he fails to comply with the regulations of the Department of Health and the directions given him by the District Medical Inspector and Nurse in whose district he lives, pressure is brought to bear on him, either by his friends or by the Inspector, which causes him to go to the hospital apparently voluntarily, but in fact under mental protest. Many of these cases have been former patients, who have either been discharged for cause or left the hospital under circumstances that make the authorities hope that they will not be troubled with them again. Such a case on readmission is almost sure to be refractory and to cause trouble in the hospital.

The second method of admission is by forcible removal, where officers are employed to assist in removing a case from his home to the hospital after he has shown by his actions that he has no regard for his family, his friends or his associates, whom he exposes to infection by his carelessness or reckless disregard of the regulation relative to the care of his sputum. Sometimes a case is forcibly removed without an officer being present. The Medical Inspector who has been instructed to get the case into the hospital first tries coaxing, with all kinds of promises as to the many advantages that are to accrue to the patient from being an inmate of the hospital, often supplementing these by promises of pass privileges and other forms of freedom, that even the most deserving patients do not enjoy. If such persuasion results in the successful admission of the patient, just as soon as he finds out the deceit that has been practiced, he is refractory and apt to prove a hard man to restrain.

When persuasion fails, the Inspector will probably threaten to force removal with police aid. Rather than submit to this indignity, the patient will agree to go quietly to the hospital, but such an admission is just as much a forcible removal as though an officer had been employed, and the patient reaches the hospital in a refractory mood, sullen, depressed and hard to manage. Of all methods of forcible removal, the one that insures the least after-trouble for the hospital authorities is that where police force has been used. The patient knows that he has been legally removed from his former surroundings and he has no misconception as to his standing in the hospital or as to his method of admission.

There is another class of cases who, while not forcibly removed from their homes, are forcibly detained in the hospital after investigation has shown that they have disregarded the necessary sanitary regulations. Such cases, who may have been fairly good patients up to this time, will now become unmanageable under the stimulus of forcible detention.

Detention is brought about in two ways; either by resolution of the Board of Health or by request from the Hospital's Admission Bureau. If by the former, the hospital authorities must actually detain the patients. Fortunately, the Health Department's hospital is on an island, and the only means of reaching the mainland is by the Department's own boats. Thus it is easy enough to keep the patient at the hospital, but it is not easy to stop the ready flow of vituperation he emits or to hold in check the kindred spirits with whom he associates and who revel in the dif-

ficulties they make for the hospital management. It will be readily appreciated that the material furnished to the hospital in the way of refractory patients is of a kind to make restraint a great study and to cause the Resident Physician to call to his aid every resource at his command.

Voluntarily admitted cases to Riverside Hospital enjoy certain privileges that forcibly removed cases do not. The greatest of these is the privilege of the pass. After a patient has been in the hospital one month and has complied with the rules and regulations laid down for him, he is given shore leave and can visit his home or other places he has been deprived from visiting while in the hospital. Forcibly removed and detention cases do not have this privilege and often do not know it until they apply for a pass. Then the trouble begins. This is usually ushered in by angry recrimination followed by wild threats freely interspersed with decorative profanity, which includes in its scope everything and everybody connected with the Department of Health, from the Board down to the Resident Physician and his assistants. He must needs be a calm and even-tempered man who can quell this torrent of angry abuse.

At the hospital there are neither police officers to govern nor cells or quiet rooms in which to confine these recalcitrant ones. The only weapons in the hands of the hospital authorities are those of argument and persuasion. It is to the lasting credit of the officers of this institution that they have never allowed a forcibly removed patient to get away.

All patients admitted to the hospital, whether voluntary admissions or forcibly removed cases, whether from lowly surroundings or from homes of refinement, are treated alike. When a man enters the hospital his street clothes and history as a bad actor are left at the office, and he enters into the wards as a patient needing medical care and deserving of it. If a patient has been admitted from an environment where intemperance and dissipation are the rule or where morals are of a low grade, he is apt to be permanently refractory. If he comes from better surroundings and is of average intelligence, he can appreciate what is being done for him and eventually becomes a good patient. The treatment received in the hospital after admission greatly influences the character of the patient. Careful consideration of complaints and grievances, the fact that everything is being done for him that circumstances will permit, appeals to his better nature and brings out the best that is in him.

Visitors to patients may be either a great aid or a great hindrance to the hospital authorities in caring for these cases. If the visitors come to the hospital with kind words and acts and a cheerful presence, they are a great help to the management. If, on the other hand, they bring in liquor or other prohibited things to the patients, and if they are constantly finding fault with the mode of conduct of the hospital, they infuse into the patient a restlessness and dissatisfaction with their surroundings that it is hard to overcome. The helpful visitor should be encouraged and the harmful one discouraged in visiting the hospital.

The question of how long a detained case should be deprived of his liberty is a very important one. If he knows, and he generally does, the reason of his detention and is willing to learn the sanitary measures necessary to his own protection and that of his associates, there should be held out to him the promise of a speedy release from the predicament in which he finds himself as a result of his ignorance or perversity. I think that a man should be discharged from the hospital on a sort of parole and kept under surveillance by the Medical Inspector of the district in which he lives, after he has been detained for a few months and has satisfied the hospital authorities of his honesty of purpose and his ability to carry out sanitary regulations. I believe further that such a man may readily become an influence for good in the community because he will not only observe these sanitary regulations, but he will draw attention to the fact that they are necessary for the protection of the public and that he is an example of what may be accomplished in the way of teaching one who was formerly too careless or too ignorant to care.

DETENTION OF CONSUMPTIVES IN A CITY HOSPITAL

BY WALTER H. CONLEY, M.D.,
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The difficulty of detaining tuberculous patients in hospitals is a subject that has been under discussion in the Department of Public Charities by the Commissioners and those interested ever since the Tuberculosis Division of Metropolitan Hospital was opened in 1902.

Many of the patients in the Tuberculosis Divisions of the Hospitals in this Department are from the lowest walks of life, who either have no steady abiding place or who live in lodging houses of the poorer type, or who are from families living in crowded, dark and unclean tenements. The men are laborers of various kinds, with some workers in sweat shops, and a goodly number of them tramps, hospital rounders and alcoholics, who do little work and wander about from place to place, never entering hospitals until they are in an advanced stage of the disease, and then only when they become so weak that they are compelled to do so. After a short time, due to hygienic surroundings, regular hours and good food, they begin to improve and, when they feel better, they immediately request to be discharged to wander about again.

In the Metropolitan Hospital, we do everything to make this class of patients comfortable, providing amusements for them, such as checkers, cards, etc., as well as entertainments of various kinds from outside. In this way we attempt to detain them longer than they ordinarily would stay, but on account of their wandering disposition they generally refuse to remain. They return to the tenements and lodging houses where they become a menace to the health of others, as they are not careful to protect other persons about them, and expectorate frequently without taking any sanitary precautions. Before leaving the hospital, however, they are instructed as to the care of themselves and how to avoid infecting others. Each one of these patients is given a card of instructions, on discharge, printed in several languages, so that he may read it; but, in my opinion, very few of them live up to these rules.

Shortly after the opening of the City Tuberculosis Hospitals Admission Bureau in September, 1910, a rule was made compelling this class of patients to give a 72-hour notice prior to a request to be discharged. In this way, we have detained many of them for the full three days, and a few of them have remained longer. It has also given us an opportunity to request a transfer to Riverside Hospital, where they can be detained by the Department of Health under its police power in relation to communicable diseases. Under the present Charter of the City of New York, the Department of Public Charities cannot detain patients after they have requested their discharge.

The Department of Health being the only Department that can detain these cases, it becomes necessary for the Department of Charities to request a transfer to one of the hospitals of the Department of Health, if it is desirable to hold a patient. As their hospitals are usually crowded, it has been almost impossible to have such patients transferred for this purpose. Should sufficient power be given to the Department of Public Charities for the detention of tuberculous patients, many of these rounders, who are a menace to the community, could be detained in the Tuberculosis Hospitals of the Department of Public Charities, thus relieving the City of this danger.

I have compiled a few figures in relation to re-admissions of this class of patients. During the past two years I find that one man has been admitted 13 times; one 12 times; two 10 times; three 9 times; eleven 8 times; four 7 times; thirteen 6 times; thirty-one 5 times; twenty-one 4 times; twenty-five 3 times; two hundred 2 times.

Of the patients admitted three times and over, 80 per cent of them come from lodging houses. In my opinion, all of them should be detained by compulsion, since they go out into the city from lodging house to lodging house, and on account of their uncleanly habits, will not care for themselves and do not take any precaution to protect other persons with whom they come in contact.

THE EFFECT OF HABITS OF POSTURE ON HEALTH

THE HUMAN BODY AS A MACHINE

BY JOEL E. GOLDTHWAIT, M.D., F.A.C.S., BOSTON, MASS.

The way the body is used determines to a very considerable extent whether we are to be well or ill. The proper adjustment of the different parts of the body (the human machine) is of the same importance, if we are to be well, as the proper adjustment of the parts in an automobile, a sewing machine or other mechanical device. In an automobile or machine each of the individual parts may be perfect, but they may be so placed or adjusted that the machine either will not run or run very imperfectly. With the human body exactly the same thing is true. The individual parts or organs may all be normal, but the adjustment of the different parts, one to the other, may be imperfect, and conditions result which we call poor health or sickness, or which at times may be so severe that death results. That which represents sickness in an individual is many times exactly similar to conditions which may exist in the automobile or machine. In the automobile if too much gas is supplied, the engine will not run, and the same thing is true if too little gas is supplied. If the cylinders are not supplied with the proper amount of oil either the cylinder clogs from the burning of the oil, if it is supplied in too great quantity, or the parts heat because of the friction if too little oil is used. If the sparking system is not right, the gas is not properly "fired," an undue amount of carbon forms, and the engine cannot work rightly. With the sewing machine, the parts must be properly oiled, the bearings must be true, the thread must be supplied under the proper tension, otherwise the result of the work of the machine is unsatisfactory or the parts break or wear unduly from the imperfect adjustment.

With the human being, if the body is used rightly, the air is taken into the lungs in proper amount, there is no special effort in the intake; the circulation is carried on with perfect ease because there is the proper amount of space for the heart to act in, and there is no undue compression as the result of the narrowing of the vessels through which the blood must be forced. Also if the body is used rightly the abdominal organs are held properly in place so that the food (or fuel) which is taken into the body is properly consumed; there is no formation of undesirable waste products (undue ash or carbon) and the energy of the food is taken into the body ready for use. With this, the waste of the body is passed off properly, there is no undue clogging of the parts either through the bowel or the kidneys, and the intake and the out-take is carried on with the proper adjustment.

Inside the human body there are many glands or organs which secrete different elements, these elements being discharged into the blood or other tissues in certain quantities and at certain times, in order to meet the special requirements of health. These are exactly similar to some of the accessory parts of an automobile and are absolutely essential to the proper running of the machine or the health of the individual. All of these parts are made of soft tissues with soft pipes or vessels, so that it is extremely easy to compress them and interfere with the flow of material in or out of the part. When the body is used rightly there is no undue compression or bending of any of the pipes, and the body receives the various fluids or secretions which are necessary to health.

When the body is dropped or "buckled in the middle," it is absolutely impossible for the machine to run rightly, the same as it would be with an automobile if the engine case were bent in or the engine frame were sprung. With the automobile it may still be possible for the machine to get along, and it may be able to go a good

many miles, but anyone of intelligence would know that sooner or later the machine must give out because of these particular conditions. With the human body it is just as certain that if the body is used wrongly, sickness or disease of some form will inevitably result, simply because of the imperfect adjustment of the different parts. The sickness may develop in, or the giving out may be, in one part of the body or another, exactly as is true with the automobile. In the drooped position, or with the body bent in the middle, the chest is low, the lungs are used imperfectly and lose much of their vigor so that they must become weak, and it is only a question of the exposure to some disease-producing condition, like tuberculosis, pneumonia, etc., to have the individual succumb to that disease. The space in which the heart lies is naturally narrowed so that the work of the heart must necessarily suffer, and with this the vessels into which the blood is pumped must be narrowed or bent so that the flow of blood is impeded. In the drooped position of the body the abdomen is practically telescoped, as one can easily demonstrate on one self when the shoulders are brought forward or the chest is drooped. The ribs are lowered in front so that the distance between the ribs and the front part of the hip bones is very much shortened. When it is appreciated that in this space between the ribs and the hip bones many of the most important parts of the human machine lie, it takes very little argument to show that if the body is telescoped and the chest is forced downward into the abdomen that the organs there must be crowded together, with a certainty that the work which they are expected to perform will be carried on less well than is normal.

Indigestion, with the tasting of food long after it is eaten, is many times due simply to the fact that the stomach has been forced down to a lower level than is normal and it becomes impossible for the food to be passed out of the stomach into the bowel, as would be the case if the body were used erect. Not only this, but with the crowding downward of the organs the bowels are naturally squeezed together, kinks form, and unnatural angles develop, which interfere with the passage of the food or the waste through the bowel. The same thing is true of the action of the kidneys and the action of the liver, both organs at times being very much out of condition simply because of the impossibility of the blood getting in or out of the organ, or of the secretions of the organ themselves being discharged.

The same thing is true of the other parts of the body. If the body is drooped the balance between the muscles is lost and muscle strain results, with back ache, or sprung feet, or weak knees, or painful shoulders, while if the body is used rightly, not only must proper conditions exist for the working of the organs, but the frame of the body is used in such balance that there is no particular strain to feet, knees, back, shoulders, or any part. This part has been fully appreciated by the athletic trainers, by the concert singers, by the military instructors, and all whose duty it has been to prepare people for long sustained physical effort. While this has been absolutely essential in these pursuits in which long continued strain is required, it is of equal importance to every human being, because any departure from this means a waste of energy or undue friction, so that the efficiency of the individual must necessarily suffer, weakness result, and sooner or later this will be enough to cause real sickness.

Learn to stand up straight, and do not allow the body to bend at the waist line. Sit or stoop in the same way, with the trunk straight, doing the bending from the hips. In walking keep the chest up and feel the balls of the feet, and constantly keep before you the fact that the position of the trunk as it is when fully erect is the one in which the machine runs most easily, or in which the best health is possible.

HOW AND WHEN DO WE CONTRACT TUBERCULOSIS?*

BY LAWRASON BROWN, M.D., SARANAC LAKE, N. Y.

When through knowledge the time comes that we fear not for the pestilence that walketh in darkness, nor for the sickness that destroyeth in the noonday, then the need for such institutions as this and for such talks as you hear here will be done away with. Until that time, however, we must ceaselessly strive to increase our meagre knowledge of the spread of disease, and having acquired a little more, must put it as soon as possible into practical use.

The idea of contagion is centuries old, and 100 B. C. we find it suggested that animalcules, invisible to the naked eye, may bring about disease. You have no doubt heard many times of infectious and of contagious diseases. An *infectious* disease is one in which the cause of the disease gains entrance into the body and multiplies there, giving off poisons. Now, *contagion* relates to the method of transmission of the disease from the infected person to the well. From this it can be readily seen that a contagious disease is a communicable disease. While I have not time to discuss it, it may be said that not all infectious diseases are communicable.

What concerns us now are the methods of transmission of disease in general and of tuberculosis in particular. First a number of diseases, and among them tuberculosis, may be transmitted through the air. Second, some diseases require a peculiar form of direct personal contact for transmission. Third, a few diseases are conveyed from one person to another through food or water, very rarely by personal contact or by air, for instance, typhoid. Fourth, many diseases, such as malaria and yellow fever, are transmitted by insects. Fifth, some diseases can be acquired only by an injury of the body, never by contact without injury. Here are lock-jaw and hydrophobia.

We must next consider how these germs (for I shall limit this talk to diseases caused by germs) gain entrance into the body. The most common entrances are through the skin, the membranes of the eye, nose, mouth, tonsils, lungs, stomach and intestines. When the disease is air borne it can enter through any of the sources, but in the case of tuberculosis occurs most usually through the respiratory tract or lungs, or when through food, through the mouth, tonsils, or intestines, especially in the case of tuberculosis. I refer especially to milk from tuberculous cows.

If we now devote our attention more particularly to tuberculosis, we see that there are two great sources of infection, first man and second, cattle. While the tubercle germs from cattle affect chiefly children and cause only 8% of the deaths from tuberculosis, nevertheless they kill 16,000 persons each year. The germs enter the body practically always in the milk drawn from a cow with tuberculosis. It would seem to be a simple matter to rid our cattle of tuberculosis, but the cost would be so great that it appears impracticable to attempt it to-day. Man, however, is the source of infection of man in 92% of all cases, and it is necessary that we should study how this takes place. While some of the secretions of the body do contain some tubercle germs, it has not yet been shown that any of them play an important part in comparison with the sputum. The sputum is unquestionably the source of infection in almost all of the 92% which I have mentioned. Sputum is usually coughed up, and in the course of twenty-four hours a patient may expectorate billions of tubercle germs. During this act of coughing a fine spray is emitted from the mouth, and may go for a distance of four or five feet from the cougher This spray may contain tubercle germs, and anyone coming within this radius may inhale tubercle germs. Most of these droplets, however, must fall to the floor where they quickly dry. The sputum contains mucus, which when dry is very tough, and it requires considerable force to dislodge dried sputum from even a smooth surface. Many men are careless about spitting upon the floors of cars, of public buildings or upon the sidewalks. In the last case fortunately the tubercle germs are quickly

*One of a series of bi-weekly talks delivered to the patients of the Adirondack Cottage Sanitarium.

killed by the light and air, but we may contaminate our shoes and skirts and so carry the germs into our homes. Here by one process and another the sputum is finally reduced to dust, and thanks to our darkened houses, the tubercle germs may escape death from light. Being incapable of motion, they lie in some dark corner for the mistress of the house or for the maid to stir them into the air by dry sweeping. If perchance they fall upon some piece of furniture, they are again given a chance, as Dr. Osler says, by that process aptly termed dusting. When each tiny particle of dust can carry a dozen or more of these germs we see how readily they can be breathed in, for it requires from one to eight hours for the dust to settle completely. From what I have said you can readily see that tubercle germs need protection from light and air, which kill them, and this they gain in the house. For this reason tuberculosis has been well called a house disease. I do not believe it is ever acquired in the open air. So much then for the tubercle germ.

We must now turn our attention to the persons who become infected and attempt to see how and when this may occur. It might be stated at the outset that no person is so resistant to the disease that he cannot acquire it if he gets into his body a sufficient number of germs. Again, it is readily seen that when this person's powers of resistance are weakened, fewer germs are needed to infect him. There is much evidence to show that young animals and children have less powers of resistance to the tubercle germs than adults. Many reasons, which we cannot enter into, have been advanced to explain this. The child lives, however, nearer the earth and the dust than his elders. He creeps on the floor and mouths all objects that he can get into or near his mouth. Dirt has no terror for him and he no repugnance for it. They are often constant companions, and if perchance he lives with infected dirt, his chances of infection are nearly 100%. Many figures have been published to show that in large cities before the age of fourteen in nearly every child tubercle germs have found a lodgment. In infants, when they cause tuberculosis which is discoverable, the outlook is gloomy. It has been estimated that 80% of infants infected in the first year die from tuberculosis, while death occurs in only 20 to 30% of those so infected in the second year of life. In the later years of childhood. the outlook for discoverable disease is brighter. But as I said before, from 75% to 100% of all children who have reached their fifteenth year have gotten into their bodies tubercle germs. These children are infected as we say. As only one in seven to one in ten of all persons die of tuberculosis, many of these must recover from the infection or holding it in check finally succumb to other diseases. This lodgment of tubercle germs, this infection, must have some affect upon the person, and it is interesting to try to find out what it is. All of you know what tuberculin is, and that when it is injected in moderate amount into the body of a healthy person it produces no results. This is also true of children, and the first effect of the tubercle germs when once in the body is to change it so that it *reacts*, as we say, to tuberculin. Remember that it is impossible to make a man or baby or animal without tubercle germs react to tuberculin. This then is the first effect. The next question is, what becomes of the tubercle germs. We know that in the vast majority of cases they produce no discoverable disease. Do they die or do they smoulder along like fire in cotton waiting for a suitable moment to burst out. It has slowly been proven that to make an animal resistant or immune as we call it to tuberculosis, we must inject living tubercle germs. If this is so, these infected children may be more or less immune as long as the tubercle germs remain alive. This means that they can resist fresh doses of new tubercle germs, provided the doses are not too large. The children grow up and possibly for one reason or another, overstudy, too little sleep, poor food, stale air or what not, become run down. Their immunity or resistance is greatly lessened and they become liable to fall a prey to their own tubercle germs which they have housed for years or to the germs of another, which some believe is less likely to occur. This unfortunate accident occurs most frequently between the eighteenth and thirtieth years. Symptoms develop and attention is drawn say to the lungs where is found a deposit of germs which came from the original point of infection, usually a (lymph) gland. The older a person becomes after twenty-five, the less likely is he to develop tuberculosis. After adult life is reached, the number of germs necessary to produce an infection is very much larger, and furthermore it seems often necessary that

the resistance of the person so exposed must be reduced for an infection to take place. The resistance can be reduced by overwork, great mental anxiety, worry, nursing some member of the family, poor food, poor aid and a thousand and one things. For years I have felt that we did not know all there was to be known about contagion and tuberculosis. Heredity might play a part many thought and some still think. By this I mean not the inheritance of the tubercle germ, but of lessened resistance to it. It may play some part but should make us only more careful about exposure of such children. Picture a child born into a family where the father is ill with pulmonary tuberculosis. He cannot work and sit about the house and spits, not always into the stove or cuspidor. The dirt on the floor becomes infected with tubercle germs. The baby, with lessened resistance through poor inheritance, poor air, poor food, creeps in this infected air and the result is quickly manifested. The older children develop bone or gland tuberculosis and later possibly pulmonary tuberculosis.

You might ask on what evidence much of this is based. It has been slowly accumulating for years, but to-day we have a large amount of experimental work on animals that goes to prove what I have said. That infection in adults is rare is proved by the number of nose and throat specialists who after years of work with tuberculous patients, escape discoverable tuberculosis. In Brompton Hospital in London where a large number of doctors have for years cared for tuberculous patients the number of doctors who developed pulmonary tuberculosis is astonishingly small. Of 376 internes in the City Hospital (Cook Co.) in Chicago where tuberculous patients were in all the wards, only one in twenty developed pulmonary tuberculosis, whereas in the general population one in ten dies from it. These persons were especially exposed to tuberculosis. Some years ago we attempted to prove that adults could be infected. We wanted to find two closely associated but unrelated adults and chose to study man and wife, one of whom was tuberculous. We collected over 40,000 couples, one of whom was tuberculous, and Mr. Pope, who was here, studied them. Allowing for the one in ten who become tuberculous under any conditions, we had very great difficulty in proving infection for the small remainder. On the other hand I do believe there is some, though not great danger for adults. This is suggested by the fact that when healthy milch cows are associated in a barn with tuberculous cows, sooner or later most of them become infected.

Now to recapitulate: We have seen that tuberculosis is spread from cattle to man in 8%, but from man to man in 92%, roughly speaking. Sputum in the form of dust or droplet is the chief source of infection. We must not relax in the slightest our efforts to destroy all germs as they leave the body. We have learned that young animals and children are many, many times more prone to tuberculous infection than adults. We must redouble our efforts to protect infants and children, and what is not less important, we must see that the resisting powers of adults is not lowered by circumstances over which they have no control, such as long hours of work, working under poor hygienic conditions, and the many other factors that I have mentioned. In fact, it is likely that adults must have a very large dose of germs or have lessened resistance to become infected at all.

In conclusion I would say that I believe the most efficient methods of combating tuberculosis now at our disposal are the greatest protection of children during the first few years of life, and the maintenance, especially from fifteen to thirty years, of the individual's resistance to disease.

THE HOME TREATMENT OF PULMONARY TUBERCULOSIS

BY GEORGE M. STERNBERG, M.D., SURGEON GENERAL (RETIRED) UNITED STATES ARMY, WASHINGTON, D. C.

Experience has demonstrated that a change of climate or of location is not essential for the successful treatment of cases of tuberculosis in many parts of the United States. Continued residence in a hot and damp climate is decidedly injurious. The tonic effect of dry, cold weather is decidedly beneficial. Indeed, the breathing of cool "fresh" or cold air is one of the most important factors in the treatment of this disease. This may be secured at or near the sea level, during the winter months, in a large portion of the United States, by living and sleeping out of doors. In summer the nights are not sufficiently cool in many localities to insure refreshing sleep, even in the open air. But an elevation of from one to three or four thousand feet will usually give cool nights in any latitude.

That patients may be successfully treated in their own homes in our eastern cities, is a well established fact. But I think it is also generally admitted that tuberculosis patients do better in the country, where the air is fresher and the temperature usually several degrees lower, than in a nearby town. Having these facts in view, sanatoria are springing up in all parts of the northern United States, and in some sections it is the aim to have at least one in every county. Recently, however, there seems to be a tendency on the part of many medical men to deny or ignore the special advantages claimed for such sanatoria and to treat patients in their own homes.

In discussing home treatment we must consider it from two points of view—the interests of the patient and the interests of his family, and of the community in which he lives. So far as the patient is concerned it may be admitted that under favorable circumstances as to surroundings, nursing and medical supervision the results of treatment may be as satisfactory as in a sanatorium. Favorable circumstances must, of course, include sleeping, and so far as is practicable living constantly in the open air. But it is evident that in the vast majority of cases it will not be possible to keep the patient under such ideal conditions and to give him such constant care and supervision as may be secured at a well regulated sanatorium, or, for advanced cases, in a tuberculosis hospital. I believe it to be a fact that many patients who remain at home on the advice of their physician, or because they are unwilling to leave their home surroundings, advance from the incipient and curable stage to a point when recovery is almost hopeless, and then are sent to a sanatorium as a last resort.

But if the chances of recovery at home were equally good, there is another point of view which should induce us to insist upon the building of more sanatoria and hospitals for the accommodation of tuberculous patients, and to urge upon those unfortunate victims of ignorance and neglect the cruel consequences which may result from a selfish determination to remain at home when the way is open to them to "take the cure" at a nearby sanatorium.

It is a well-established fact that every case of tuberculosis has become infected by tubercle bacilli which developed in, and were given off from, a preceding case, or from a bovine source. If every case of the disease could be placed in a sanatorium and kept there until recovery or death, our efforts to exterminate this "great white plague" would soon be successful.

We hear a great deal nowadays about "phthisiophobia" and I may be accused of making statements which are likely to cause undue apprehension and to lead to the imposing of unnecessary restrictions and hardships upon the innocent victims of this disease, who are no doubt entitled to our deepest sympathy. But we must not allow our sympathy to induce us to ignore the interests of those who are not yet infected and who, through our neglect to insist upon the truth, as regards the danger of infection, may become links in an interminable series of cases. Now, as to the danger of infection, it is true that ordinary association with a patient suffering from tuberculosis, when proper precautions

are taken as to the disposition of the sputum, cleanliness of person, etc., is attended with very little risk. This is shown by the fact that physicians, nurses and attendants at sanatoria do not contract the disease from close association with patients. The tubercle bacilli are not given off with the breath in ordinary respiration, but are ejected in little droplets of mucus by an explosive cough. Even these little droplets containing bacilli offer little danger unless they are projected directly into the face and mouth of a very susceptible person. Most adults have a very slight susceptibility to infection. But it is different with children and we now know that tuberculosis infection usually occurs in childhood, although the development of the disease, in recognizable form, often does not occur until adult life. Bacteriologists have shown that in many infectious diseases it takes a certain number of germs to infect a susceptible animal. This is no doubt true also of tuberculosis. The repeated introduction of a few germs may, especially in adults, have no effect, whereas a massive dose may lead to a localized infectious process, or even to general miliary tuberculosis.

How then are the children infected? The answer is simple: In their homes, by their father, mother, brother or sister, aunt, uncle, or the servant who have tuberculosis. The chances of becoming infected out of doors, in the streets, on the street cars, or even at school are small indeed compared with the liability in the home where there is an "open case" of the disease. It is for this reason that tuberculosis is recognized by sanitarians as a house disease. I will not attempt to point out the many ways in which a child may be infected from association with the consumptive, even when one is reasonably careful, but I do not hesitate to say that its chance to escape infection is very slight when the patient is ignorant, careless, or indifferent.

The immediate incentive for this paper I have found in a publication, just received, which brings the facts to light in a convincing manner, as the result of a carefully conducted scientific investigation. This paper is entitled, "A Study on the Spread of Tuberculosis in Families" and is published by The University of Minnesota. The report is made by Dr. Herbert G. Lampson and the investigation was made by a committee of which Dr. George Douglas Head was chairman. The method pursued consisted in the application of the Von Pirquet test to all members of a family in which there was an advanced case of tuberculosis, or in which a recent death from this disease had occurred. As a rule, a positive result was obtained in all, or nearly all, of the members of the family who lived in the house with the sick person. As a control the members of other families, in which there had been no case of tuberculosis, were tested. The result of the Von Pirquet test in these families was almost uniformly negative. The conclusions reached are stated by Dr. Lampson as follows:

"I conclude from the above studies, first, that the spread of tuberculous infection in families where open cases of tuberculosis exist is greater than it is generally understood to be. Sixty-seven per cent. of the individuals of these families, excluding the center cases, show evidence of tuberculous infection. In no case where there has been definite proven exposure of a family to an open case of tuberculosis, no matter what precautions have been taken, have I failed to find a spread of infection. In at least ten cases investigated, the infection has spread to the limit of available material. Every member of these ten families shows evidence of tuberculous infection.

"Second, that in families where no cases of tuberculosis have been found, no matter what the home life or living conditions were, the number of individuals showing evidence of tuberculous infection was small, namely 2½%.

"Third, that in families where cases of latent tuberculosis exist, the spread of infection is not as great as in families where open cases of tuberculosis are found, 22% against 67%.

"Fourth, that in families where healed cases of tuberculosis are present, the spread of infection is less than in families where open cases exist, 33% against 67%.

"Fifth, that in families where no tuberculosis is found, the number of individuals showing evidence of infection is very small (2½%) in comparison with the families in which open, latent, or healed tuberculosis exists."

In view of the facts developed by this investigation I think it is evident that we should discourage the home treatment of tuberculosis and insist upon legislation for the removal to sanatoria and hospitals of open cases of the disease, who are living under conditions which endanger other members of their families. Unless this is done a new crop of cases will continue to develop in the home circle of these unfortunate victims from close association with previous cases of the disease, and our campaign for the prevention of tuberculosis will be indefinitely prolonged.

TUBERCULOSIS AND ITS TREATMENT

BY WALTER C. KLOTZ, M.D.,
THE BARLOW SANATORIUM, LOS ANGELES, CAL.

Tuberculosis is the most widespread of all germ diseases. It has existed among the white races for ages and, following in the wake of European settlements, it has spread over nearly all parts of the civilized world. Today it is prevalent in such remote places as Iceland, Labrador, Alaska and the South Sea Islands. In the United States it claims about one hundred and fifty thousand victims each year. Most of these could be saved, however, if treatment were begun early enough. Many do not know until too late that they have the disease, for some proper means and facilities are not available; others, again, fail to make use of opportunities placed in their way. In order to remove this plague we must educate *everyone* as to the methods of preventing and curing the disease. One of the principal purposes of the sanatorium is to read such knowledge through its own patients.

The direct cause of tuberculosis is always in infection with a specific germ, the bacillus of tuberculosis, discovered by Koch in 1882. This germ belongs to the lowest form of vegetable life, the bacteria. The disease occurs not only in man, but also in domestic animals, particularly cattle. It may attack any part or organ of the body, but in man the lungs are most frequently the site of disease. In children, tuberculosis of bone, joints and lymphatics occurs frequently. The bacilli are found in enormous numbers in the expectoration or sputum of those suffering with tuberculosis of the lungs.

The germs have no power of motion of their own, but if sputum is allowed to dry and mingles with dust, the germs are carried about by the air currents. Within doors, particularly in poorly ventilated and dark dwellings, they may live for months. Fresh air and sunshine are Nature's disinfectants. The tubercle baccilli enter the body either by being breathed into the lungs, or they may be swallowed. Knowing how prevalent tuberculosis is, it would seem that nearly every one must be exposed to infection sooner or later. Fortunately, however, every infection is not followed by tuberculosis, because Nature has given our bodies the power to overcome disease germs and their poisons up to a certain degree. We call this power of resistance "immunity." This immunity or power of resistance to any given disease varies in different races, and in different individuals of the same race. For example, the Negro race is naturally immune to yellow fever, but shows little resistance to tuberculosis. The latter is true also of the American Indian and the natives of the South Sea Islands. Certain families or strains may show less resistance than the rest of the race. This fact led to the old view that tuberculosis was hereditary. The disease itself is never inherited, but the tendency to tuberculosis is, and, what is more important if the parents have tuberculosis, there is more chance for the infection of their children. We have reason to believe that infection is more liable to take place during the earlier years of life than later on.

Now whatever the natural state of immunity may be, it is frequently altered or weakened by many conditions and causes, and in this way any one of them may be, and very frequently is, the means of "bringing on the disease." As such we may include anything that weakens the general health or the health of any part of the body, especially the lungs. The breathing in of dust or irritating gases for any length of time injures the delicate mucous membrane of the inner tubes and spaces of the lungs. A bad cold, bronchitis, or pneumonia may cause or leave a weak place. Hence the old tradition that "the bad cold ran into consumption." Severe general illnesses like typhoid fever or influenza may leave the body in an exhausted condition and are therefore often followed by tuberculosis of the lungs. In the same way unhealthy dwellings, badly ventilated shops or factories, poorly cooked or not enough food, want of sleep, overwork, anxiety and worry, intemperance, vicious habits—all of these may and do help to "bring on" or cause the development of tuberculosis.

The efforts of modern medicine, particularly in connection with our public health cam-

paigns, are being directed more and more toward the prevention of disease. Tuberculosis has decreased in most countries and states where modern methods of sanitation have been put into practice, but there still remains a great deal to be done. If it were only possible to have all tuberculous patients dispose of their sputum properly, one of the greatest sources of infection would be removed at once and tuberculosis would probably cease to exist in another generation. It is the sacred duty of every tuberculous patient when he leaves the sanatorium to set an example himself and to teach others how to carry out such simple means of prevention.

Coming down to the actual treatment of tuberculosis, the most important point to remember is that it cannot be begun too soon. The longer one waits, the more time will be necessary in order to effect a cure. It is just here that we find the cause for most of the failures. Either the patient did not know he was sick, and therefore did not see a doctor, or perhaps, when seeking medical advice, he was not told frankly what was the matter with him. Then again, in many cases the trouble develops so gradually that there is no suspicion of illness.

The formation of the small granules of inflammatory tissue which we call *tubercles* does not begin within the air tubes or air spaces of the lung, but in the tissues surrounding them, or in the partition walls between the spaces, just as in burning buildings a fire often makes great headway between the walls before it is discovered. All this time that the tubercles are being produced, certain poisons or toxins, as we call them, are being formed and absorbed by the body tissues. These poisons cause the early symptoms of tiredness. There is less zeal for work, the appetite is not so sharp, and there may be a little indigestion. All this time the lining membranes of the air cells or tubes has remained unbroken. There may therefore be little or no cough and there is usually no expectoration, nor will the tubercle bacilli be found in the sputum. At the same time, mild or moderate fever may be going on, with gradual loss of weight and strength. Even at this stage a physician can detect certain signs on examining the chest. Then some day, perhaps after a cold, or a severe attack of influenza, the "fire" suddenly breaks through, a cough with expectoration develops, and the bacilli become visible in the sputum.

With the discovery of a specific germ causing the disease, it was only natural for men to seek some substance which would destroy it in the body. So far, such efforts have resulted in failure, nor does it seem likely that any such chemical agent can ever be found. The tubercle bacillus is very resistant to reagents. It has a waxy covering or capsule that is not easily dissolved and which requires penetrating disinfectants like strong carbolic acid to destroy it. Any substance, therefore, powerful enough to kill the tubercle bacilli would first destroy the tissues of the lungs. Injected into the circulation, such a substance would destroy the blood itself before ever reaching the diseased area. It is clear, therefore, that the claims of so many fraudulent consumption "cures" must be false and absurd. We need a substance which is harmless to the body cells, but which will kill the bacilli, and the only substance that can do this are the anti-bodies or protective substances which Nature produces from and in the body itself. In other words, it is through that same power of immunity that we spoke of in the beginning of this article.

It is one of the laws of immunity that if the body is invaded by a certain quantity of disease germs or their poisons, it will be stimulated to produce certain substances which overcome or bind the germs or their poisons. But if at any one time too large an amount of disease germs enter the body, it will be unable to supply enough of these protective substances and the patient will succumb. The process varies in different diseases. In tuberculosis the process is somewhat like this: In those portion of the lungs surrounding the tuberculous "spot," certain cells appear, increasing in number, to form a zone around the diseased area. From this zone of cells there is gradually formed a wall of scar tissue. This wall, or barrier, becomes thicker and firmer as the process of healing goes on, growing more and more toward the center of the diseased portion. The tubercle bacilli are thus finaly starved out, as it were, and their remains are digested and carried away by the cells called phagcytes. This process of repair or cure is always a slow one, nor can we always be certain when it is completed. The object of the general sanatorium treatment is to help nature in this process of encapsulation

or repair by putting the body in the very best possible general condition.

A proper and sufficient diet restores the nutrition and provides the blood with materials from which to make the protective and healing anti-bodies. This is all that the diet is intended to do in the treatment of tuberculosis. Nothing will be gained by stuffing and putting on an excessive amount of weight. On the contrary, over-feeding frequently defeats this very purpose by clogging the digestive apparatus with more material than it can use up. In consequence fermentation takes place and certain poisons are produced and absorbed by the body in addition to those of the tubercle bacilli that the body is struggling with. In those who are under weight a moderate and gradual gain is of course a favorable sign, but attempts to bring about rapid and excessive gains have frequently been followed by unfortunate results.

Fresh air is like the draught of a furnace. Without it, the fuel will not burn and there will be no production of heat, light or energy. Now all the chemical changes in the body are of a similar kind. They all depend on the process of oxidation. They require oxygen just as the coal in the furnace does. Fresh air, therefore, stimulates the appetite and digestive power; it helps build up the blood and all other tissues of the body; it improves circulation and promotes sleep. The main point is that there should be plenty of air and that it be fresh and pure. It does not make so much difference what kind of air it is. Certain climates may be better for certain individuals, but the main thing is to be out of doors, whether you are taking the cure at a high altitude or at a low altitude, inland or near the coast.

The next factor in connection with our general treatment is that of rest. In part, this is beneficial, giving the body a chance to recuperate from the general exhaustion, in those cases particularly where the nutrition has suffered much. But a more important is to prevent as much as possible the absorption and circulation in the blood of the tuberculous toxins. We know that any undue exertion, particularly such motions as involve the shoulders and chest, and any exercise that causes the pulse and breathing to become faster, increases the amount of blood flowing through the lungs. Now in health this is often of great benefit; but during a recent or acute tuberculous process in the lungs, such an increase of blood flowing through them will cause an increased amount of poisons to be washed into the circulation and produce such symptoms as fever, loss of appetite, pains and aches throughout the body, with lassitude and weakness.

We have mentioned above that each individual has the power to produce enough anti-bodies to protect him from a certain amount or dose of disease germs, but if this dose is exceeded, the body will succumb. It is also a law of immunity that small repeated doses of such disease germs and poisons can gradually stimulate the body to produce increasing amounts of anti-bodies, provided also that a little time is allowed between these doses. Until, therefore, our body has been trained and has had time to form a greater amount of anti-bodies, we must try and limit the doses of the poisons as much as possible by enforcing absolute and complete rest.

There is also a mechanical factor in connection with the elements of rest. As long as the protective wall of scar tissue about the diseased spot is still soft, any undue stretching or expansion of the chest might cause this to be broken down at some point, and allow new portions of the lung to be invaded by the disease.

When, however, in the course of time, the body has reached its normal weight and the process of repair has been going on for some little while, and when the balance between the degree of infection and the power of resistance is in favor of the latter, graduated exercise becomes a very important and necessary part of the general treatment. This has several purposes in view. In the first place, it is of course a means of recreation. For many it is a great relief when they can begin to take a short walk after the preliminary period of rest. With increasing exercise there is often improvement of the appetite and an increase in weight, where for some time past the body weight has remained stationary. A more important function of exercise, however, is to transform the soft body tissue into good, strong muscle, in other words, to get it back "into condition" again, so that it will become harder and firmer. All this takes time, for the process is a very gradual one. If at this stage the patient were to leave and resume a life of activity and hold any responsible position, he would run the almost certain risk of

a recurrence or relapse; and for that reason it is important to begin some work while still at the sanatorium, where he can be kept under observation and where he can stop at once, if any unfavorable symptoms occur. Here he can increase the load gradually as time goes on, so that by the time he is ready to leave, he has tried out and tested his strength, and there consequently is less risk of going back to his former life and surroundings.

While the above methods of treatment seem very simple, their actual application involves experience and judgment. We cannot follow fixed rules in applying them to all cases. We must consider every individual separately. It is for that reason that the home treatment of tuberculosis has seldom been able to produce the same results as the sanatorium. The patient needs the supervision and care of a doctor in whom he has confidence and with whom he is ready and willing to co-operate at all times and in all things. In this way alone can success be hoped for.

THE ADVENTURES OF T. B. GERM AS TOLD BY HIMSELF

BY ALICE SOMERFIELD, EDWARD SANATORIUM, NAPERVILLE, ILL.

We are a large and varied family. I am of the Tubercular branch and my nearest and dearest relative, in fact my cousin, is the Pneumonia germ. Very fond of him I am, so fond in fact that wherever he chances to be I do my best to follow.

When first I awakened to the fact of my existence, I perceived myself in a dark dusty corner which was very cozy, I assure you. Not for long, though, was I to stay there, for one day a woman came with a big thing called a Broom, and I was whirled into the air and the next thing I knew I had been swallowed by a Man. Down a dark passage I went and then, lo, I beheld the most wonderful sight. I saw a great many little rooms or cells and immediately I settled in one of these quite content. After some time I noticed there were more just like me in other rooms, and, oh, the times we did have! Often one of us would go up the dark passage and we wouldn't see him again, but he was soon forgotten. Sometimes, though not very often, the Man went out and then the pure cold air would strike us and make us shiver and we were afraid we would have to move, but that Man didn't like the out of doors, so much the better for us.

But one fatal day he went on a Street Car, and although there was a sign, "Spitting Prohibited by City Ordinance," he wasn't overbright nor thoughtful nor cleanly, and so I soon found myself on the floor. All day I rode in the car, and the next morning another awful Broom came along and whirled me into the air, and for a moment I thought I was going out of the door into the fresh air and sunshine, and that would have been my death. With an effort I managed to cling to something in a crevice near a seat and when the door opened and another man came in I was lifted by a gust of wind right into his mouth.

Now this man was not careless and slovenly, and the minute I went down that dark passage I was sorry and continued to fret for a long time. I just could not seem to feel contented. One day I heard a noise like a thunder above me and the first thing I knew I was in a thing that was dark and awful and is called a Sputum Cup. Then he took me to a place called a Laboratory; the name was enough for me. He left me there in that sealed box, while some one looked over the contents of the cup with a monstrous glass eye and found me and put me in an air-tight jar. Now I don't know how long I still have to live, but I don't believe it is long.

How I do wish that I had not had such an adventurous spirit! I might still be living comfortable in the careless man's chest.

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The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

THE TUBERCULOUS VAGRANT

Ten years ago the homeless tuberculous man and his habitat, the cheap lodging house, were agitating the minds of those who were trying to get a grip on the tuberculosis situation in New York City. The lodging houses were investigated. Mr. Paul Kennaday, who made the inspection, stated in his report that in not a few instances conditions were found "absolutely inimical to health and quite ideal for the rapid progress and communication of this disease" (tuberculosis).

Ten years later we have Mr. Barnes' report of a similar inspection. The same flagrant violation of the laws of hygiene and sanitation is shown. Certain old buildings, that have been lodging houses for fifty years or more, for structural reasons, are incapable of any radical improvement except at a prohibitive cost.

Mr. Barnes estimates that the lodging-house population of nearly 18,000 is over eleven times as tuberculous as the average population, and that it furnishes 8.8% of the total tuberculous cases in Manhattan although the lodging-house population is only 0.75% of the total population. From this class is recruited the hospital "rounder," whose comings and goings are seemingly beyond control. The time and energy of overworked hospital and clinic staffs are expended upon him, and he occupies precious bed space in already overcrowded institutions. The net gain is a temporary building up, enabling him periodically to emerge and continue "the endless round from ward to lodging-house and back to the street, frequently via the police station and the work house." The prolongation of his usefulness as a disseminator of tuberculosis germs may be considered as a by-product.

The solution of the tangle would seem to point in two directions: raising the standard for the licensing and inspection of lodging-houses, and the legal commitment and forcible detention of these tuberculous vagrants in a farm colony. The objection that this latter course involves interference with the man's constitutional right to liberty does not hold. As vagrants these cases are already subject to legal commitment and as vagrants they should be committed. Afterwards let them be cared for as sick vagrants, as consumptives. Thus we accomplish the protection of the community from a most dangerous group, and we give the vagrant himself a chance of rehabilitation and restored health.

A large tract of land in Dutchess

County has already been secured for a State farm colony for vagrants, but no progress in the matter of buildings has been made owing to lack of funds. The difficulty in securing appropriations for State institutions might be overcome in this instance, and the completion of this farm colony might be materially hastened if we could persuade its Board of Managers to adopt the policy of having vagrants who have consumption admitted to it first. An alternative suggestion would be to change the law applying to the establishment of this institution so as to make it a farm colony for consumptive vagrants only. This would undoubtedly insure the completion of the colony in about one-tenth of the time ordinarily required. Legislators are already alive and responsive to appeals made for tuberculosis needs. An effectively organized campaign, to acquaint the public with facts as we know them and to bring pressure to bear for the necessary appropriations, would unquestionably produce results in a very short time.

NATIONAL ASSOCIATION MEETING

While the program of the Tenth Annual Meeting of The National Association for the Study and Prevention of Tuberculosis is not complete, sufficient progress has been made to indicate a number of important features. The meeting will be held at Washington, May 7, 8 and 9.

The Advisory Council, under the chairmanship of Dr. Theodore B. Sachs, of Chicago, will discuss the Examination of Employees for Tuberculosis and Other Diseases. Besides a general presentation of the subject by Dr. Sachs, papers will be presented by Dr. Harry Mock, Physician of Sears, Roebuck & Co.; Dr. James Britton, Physician of International Harvester Co., and Dr. J. W. Schereschewsky, of the U. S. Public Health Service, with discussion by Samuel Gompers and George W. Perkins, of the American Federation of Labor.

The Sociological Section will hold three sessions. Dr. R. H. Bishop, Jr., of Cleveland, is chairman and George J. Nelbach, of New York, secretary. One session will be on the subject, "The Family and Tuberculosis," with papers by Dr. John B. Hawes, 2nd of Boston; Frank H. Mann, of New York, and one other speaker. Another session will discuss the relation of tuberculosis to other forms of public health work, with papers by Homer Folks, of New York; Dr. E. F. McCampbell, of Columbus, Ohio, and one other person. A third session will take up the subject of the care of patients after leaving sanatoria. Results of important studies by Dr. Sidney Goldstein, of New York; Dr. H. R. M. Landis, of Philadelphia; Dr. Charles F. Bolduan, and Paul Kennaday, of New York, will be presented.

In the Clinical Section, two sessions will be held. Dr. Louis V. Hamman, of Baltimore, is chairman, and Dr. S. Wolman, also of that city, secretary. Papers will be presented by Dr. Gerald B. Webb, of Colorado Springs; Dr. C. W. Mills, of Liberty, N. Y.; Dr. David Macht, of Chicago; Dr. Lawrason Brown, of Saranac Lake; Dr. J. B. Holmes and Dr. Edward Archibald, of Montreal.

Dr. Paul Lewis, of Philadelphia, Chairman of the Pathological Section, reports material for two interesting sessions. The details of papers are not yet available for publication.

A preliminary program of the meeting, with additional information as to hotels, railroads, etc., will be sent to members of the Association about April 1.

THE WORKER'S CORNER

The aim of the Corner will be to answer as briefly and concisely as possible inquiries from anti-tuberculosis workers, such as secretaries of associations, visiting nurses, physicians in charge of sanatoria or dispensaries, teachers, ministers and others, relatin to the various phases of the anti-tuberculosis campaign. This department will not be for questions and answers only. It will be a common meeting-place for the discussion of common difficulties by all anti-tuberculosis workers, either through the medium of a brief signed note, a question, or a communication to the editor.

Brushing in Pullman Cars

To the Editor:

Why do not the public health promoters do something to stop the pernicious custom of brushing passengers in Pullman coaches. I have seen the Public Health officer of a big city, and the head nurse of a medical dispensary stand up and have the dust transferred from their garments to those of their fellow passengers. When I asked the nurse why she permitted herself to be brushed in the midst of other passengers, she said she had never given it a thought. For years I have periodically appealed to our State Health Officer, and to local physicians interested in public health matters; but the practice goes on unchecked. The Pullman Company have some rules compelling the porter to do the brushing in the little hall. How nice for the passengers in either end of the coach! But even this rule is not enforced. When I have asked a porter whether the rule does not require him to brush in the hall, he usually answers "Yes, if the question is raised," or "yes, if there is a full house." Why should not Pullman coaches be equipped with pneumatic apparatus, the same as other up-to-date institutions? If all the doctors would take a stand against this practice, surely something would soon be done to stop it.

Louise Patterson.

We admit that this is a pernicious practice and no doubt a dangerous one under many conditions. The complications, however, which would arise immediately if the U. S. P. H. S. attempted to compell interstate commerce to install pneumatic brushes would be very serious. It has been found for example that it is a comparatively easy matter to order the abolition of common drinking cups, but it is an entirely different question to demand that a substitute for the common drinking cup which involves a considerable expenditure of money be installed. This is peculiarly true of interstate commerce. We are inclined to believe that it would add both to the comfort and health of the travelers if the practice of brushing on trains were entirely abolished and no substitute therefor instituted.

The Problem of Immunity

To the Editor:

Will you answer some questions for me—R. N. engaged in tuberculosis work?

Is it true that the only milk which it is safe to use is that of tuberculous cows?

A statement to this effect is made in the last number of the Medical Fortnightly of St. Louis.

"Immunity is produced by the use of bacterial products. If the tubercular bacillus be grown in a cow, the bacillar would be thrown off through the milk, i. e., modified blood. We drink the milk and it helps to immunize us, and forms the force in civilized blood, that is always militating against the tubercular bacilli. The less tuberculosis we have in cattle, the greater will be our death rate."

If our Health Boards are "unconscious assassins," "threatening to drown us in a sea of tuberculosis" by killing off the tubercular cows, then it is time the medical profession came to the relief, and that we be ready to help them in the work.

Sarah Eleanor Keeler, R. N.

The whole question of natural immunity, as it relates to tuberculosis, is one which is too large to discuss in this Department. The article on the Infectiousness of Tuberculosis by Dr. Biggs in the March number of the Journal deals somewhat with this problem. An article which will be published in a subsequent issue by Dr. Lawrason Brown will also discuss this problem. Our knowledge as to how far natural immunity may be acquired by previous infection either from human or bovine sources is still very limited and no one is warranted in making dogmatic statements along this line.

Fumigation of Books

To the Editor:

Will you please give whatever information you can concerning the best methods for the fumigation and disinfection of books and libraries?

Bernard F. Drompoole,
Dr. Robinson Bosworth.

1. Dr. Robert J. Wilson, Superintendent of Hospitals of the Department of Health of New York, replies to this question as follows:

"Books can be successfully disinfected by formaldehyde fumigation.

"In order to insure thorough fumigation the books must be so arranged as to insure penetration of the gas between all the pages. This is best accomplished by opening the book until the covers come together at the back, holding them in this position by a rubber or clothes pin. This will cause the leaves to separate and allow the gas to pass between them. The books should then be placed on perforated shelves preferably

made of wire netting, standing on end. Formaldehyde gas 40 per cent solution from any kind of an approved generator in the proportion of 1 oz. of solution for every 100 cubic foot of space should be supplied in an air tight box that contains the books. The exposure to the gas should not be less than four hours.

"Test organisms of common pathogenic organisms exposed under these conditions have been destroyed by the action of the gas."

A TUBERCULOSIS QUESTION BOX

Suitable questions will be answered on this page each month. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," JOURNAL OF THE OUTDOOR LIFE, 289 Fourth Avenue, New York City. Please write only on one side of paper. Questions received before the 10th of the month will be answered the following month.

TO THE EDITOR:

1. What are the symptoms of tubercular peritonitis? (a) Does bloating of the abdomen and distress after eating accompany this disease? (b) Are the female organs affected? If so, does purulent discharge follow the menstruation period? (c) Does one run a temperature?

2. Would the change from an altitude of 5,300 feet to 1,800 feet be dangerous to a person who still has slight infiltration in one lung and also germs in sputum?

3. If such a change is made, what month in spring would be best? A Reader.

1. The usual symptoms are pain and swelling of the abdomen, with some disturbances of the digestion? (a) They may, but not necessarily. (b) Sometimes, not always. In such cases no discharge is caused by the condition. (c) Usually.

2. No, if other conditions are satisfactory.

3. Not during hot weather.

TO THE EDITOR:

1. Is it dangerous to swallow saliva? Sometimes early in the morning it flows quite profusely.

2. What would be called "elevated temperature"?

3. Will dyspnea decrease or become absent on arrest or cure?

4. Has the Journal any information of "Terpezone"?

5. Is 50 to 75 grams high expectoration? G. O. T., N. Y.

1. Yes.

2. A rectal temperature above 99.5° F. is abnormal in most individuals when at rest.

3. This depends upon the extent of the disease. Advanced cases usually remain short of breath permanently.

4. We have no authoritative information. We are informed by some physicians that they have tried it with disappointing results. It is usually risky to experiment with proprietary methods of treatment.

5. The amount of expectoration varies greatly. The amount you mention might be high for an incipient case, but fairly low and satisfactory for a more advanced one.

TO THE EDITOR:

I would like to ask whether you really think the climate beneficial and could a person expect a quicker and more complete recovery there? I have had a position offered me and can secure employment at most any time. I expect to go to a sanatorium here and should like to go from there to the Pan Handle in Texas. A Subscriber, Md.

The climate of the Southwest is certainly very beneficial for many cases. The expectation of a quicker cure depends upon all the factors in your case. It is very likely that your plan would work out well, but you should be guided by the advice of the physician at the sanatorium when the time comes for your discharge.

TO THE EDITOR:

Would it be safe to the other members of a family for the tubercular member to prepare vegetables that require cooking? The sputum examinations in my case show the tubercular bacilli to scale the highest in list. If any higher they would be absent. I am an arrested case, and it would be convenient for me to assist insofar as not to be unsafe to the rest. Please make a distinction as to the danger line in such a case. Missouri Subscriber.

If you are scrupulously careful of your sputum and of the cleanliness of your hands and person and always cover your mouth when coughing, you might help in the kitchen as you suggest without risk to others. Do not prepare food to be eaten uncooked.

TO THE EDITOR:

As my room has two windows facing south, in what position should my bed be placed in order to get the most benefit from the outdoor air? Would you advise having one window entirely up and the other down, or would you suggest using a window tent? Old Subscriber.

A window tent is intended to allow fresh air to reach the sleeper without making the bedroom uncomfortably cold. Therefore, we would not advise the use of a window tent if there is no objection to allowing your room to be flooded by fresh air. In order to get the most benefit in your room, raise both windows from the bottom almost to the full extent of the opening and lower the upper sash about three inches and place the head

of your bed close to one of the open windows with the side bar of the bed parallel with the window casing.

TO THE EDITOR:

1. What are the symptoms of tuberculosis of the bowels?

2. In general, what is the method of treatment?

3. Is this form of the disease considered more serious than tuberculosis of the lungs?

W. W. M., New Mexico.

1. Usually abdominal pain and diarrhœa.

2. This is a medical question which we cannot answer in the columns.

3. Yes.

TO THE EDITOR:

1. What effect does the inhalation of tobacco smoke have upon the lungs?

2. Have you ever published an article on "Proper Diagnosis in Tuberculosis," and if so, what issue?

3. In what issue did you publish the article about "Lung Germine"? R. C. D.

1. The inhalation of tobacco is apt to irritate the mucous membrane lining the upper air passages and bronchial tubes and in that way causes congestion. It has little effect upon the lung itself, if this is normal, but may irritate diseased areas in the lung.

2. The article entitled "The Onset of Tuberculosis, Diagnosis and Careful Treatment," by Dr. Joseph Walsh of Philadelphia, was published in the August, 1908, number of the Journal. No copies of this number are available for distribution. A number of other articles on this general subject have been published from time to time.

3. You will find the article on "Lung Germine" in the Journal for April, 1913.

TO THE EDITOR:

Have had Eckman's Alterative recommended to me as a cure for pulmonary tuberculosis. Can you also recommend it, or do you know anything of it at all? Have seen several so-called cures exposed in your journal, so thought you might tell me of this remedy.

Yours very truly,

Mrs. C. H. K.

You will find an article on Eckman's Alterative in the Journal for December, 1913. A further investigation of this apparent fraud is being made, and will be published at a later date.

TO THE EDITOR:

1. What do you know of "Tuberclecide," an alleged tuberculosis cure "discovered" by Chas. F. Aycock of Los Angeles, Calif.?

2. Are there any towns in the West or Southwest where the patients stay at private cottages and take the cure there under the direction of a physician, as many patients do at Saranac Lake?

3. When the West is spoken of, one frequently hears the admonition, "Do not go unless you have plenty of money." Is the cost of living there any higher than at Eastern health resorts, Saranac Lake, for instance, where board and room with sleeping porch costs from $15 to $18 per week, exclusive of doctor's fees, medicine, laundry, etc.?

4. Would you recommend the use of shoulder braces when a patient has difficulty in sitting or walking erect?

Subscriber, Pa.

1. You will find a complete exposé of the fraudulent methods of Tuberclecide and of Chas. F. Aycock in the Journal for November, 1913.

2. There are a number of towns in the Southwest where you can secure treatment under similar conditions to those at Saranac Lake. I refer particularly to Phœnix, Arizona; Silver Lake, New Mexico; Santa Fé, New Mexico, or San Antonio, Texas. A. C. Woodward, Santa Fé, New Mexico, will gladly give you information concerning boarding-houses and accommodations in that vicinity.

3. The cost of living in the Southwest is probably not much higher than it is in the ordinary resort towns in the East. One must, however, take into calculation the length of the journey, the distance from home, and the cost of traveling. Accommodations in the towns mentioned in the preceding paragraph will run from $12 to $35 or $40 per week. It is not well to go to the Southwest unless one has a sufficient amount of money to last for at least a year.

4. A brace may be of some value in certain cases.

TO THE EDITOR:

Will you be kind enough to give me the names of the most recent and authoritative medical works on the disease tuberculosis, and the names of the publishers? I. L. W.

The following are a few of the best books on tuberculosis: "Tuberculosis as a Disease of the Masses and How to Combat It," by S. Adolphus Knopf, M.D. Paper, 25 cents; cloth, 50 cents, postpaid. "The Crusade Against Tuberculosis. Consumption a Curable and Preventable Disease: What a Layman Should Know About It," by Lawrence F. Flick, M.D. $1.08, postpaid. "The Great White Plague—Tuberculosis," by Edward O. Otis, M.D. Thomas Y. Crowell & Co., $1.10, postpaid. "Tuberculosis: A Preventable and Curable Disease—Modern Methods for the Solution of the Tuberculosis Problem," by S. Adolphus Knopf, M.D. Moffat, Yard & Co., $2.20, postpaid. "The Prevention of Tuberculosis," by Arthur Newsholme, M.D., F.R.C.P. $3.15, postpaid. "Tuberculosis," by Arnold C. Klebs, M.D. D. Appleton & Company, $6.00, postpaid.

The book by Klebs is one of the best works on the medical aspects of tuberculosis which you can secure. Any of these books may be purchased from the publishers or ordered through the Journal of the Outdoor Life.

GLEANINGS FROM TUBERCULOSIS LITERATURE

Tuberculosis and Eugenics

Arnold L. Gesell, in the October, 1913. "American Magazine," gives the results of an intensive study of the "Village of a Thousand Souls." The village consisting of 220 families is described as located in a prosperous farming section in the middle west. The observations cover the period 1880 to 1913, and show the number of feeble-minded, insane, suicide, alcoholic, epileptic, criminal, eccentric and tuberculous persons in the village during this period and their distribution according to families. Exactly one-half of the families were afflicted with one or more of the above. Tuberculosis appears in nearly 7 per cent of the families as follows:

Five families had one case each, eight families two cases each, and two families three cases each. In two distinct instances tuberculosis appeared in families in which there were insane and alcoholic persons, three in which there was a feeble-minded person, one in which there was an eccentric person, one in which there was a suicide and an alcoholic, two in which there was a feeble-minded person, and one in which there was an insane person and an eccentric person. Thus eight of the fifteen families afflicted with tuberculosis also had members who were mentally defective. Seven families in which there were tuberculous cases did not have members who were defective.

The author leans to the opinion that the village is perhaps typical and not unusual. The study was made from a eugenics standpoint and no comment is made upon the tuberculosis findings.

Chicago's Instructions to Tuberculous Patients

The entire eight pages of the October 15th, 1913, issue of the "Bulletin of the Chicago Tuberculosis Institute" is devoted to "Instructions to Tuberculous Patients." The thirteen different articles by well known physicians and laymen cover the patients' side of the problem from "Shelters for Outdoor Sleeping," by James Minnick, to "Cures," by Clyde D. Pence, M.D. "Rest," "Exercise," "Diet," and "Tuberculous Mothers" are among the different phases dwelt upon. Under the caption "Home Climate and Other Climates," Clarence L. Wheaton, M.D., discourages the somewhat tenacious idea that high altitude and other climatic advantages are necessary to the cure of tuberculosis. He pertinently states that "Sanatoria in operation in all parts of the country have demonstrated that tuberculosis can be cured in any climatic zone." "Sanatorium or Home Treatment," by Theodore B. Sachs, M.D., is very much to the point and explains just why as the disease progresses institutional care becomes more desirable until in the last stages it is "an unavoidable necessity." "An Injunction to the Community," by O. W. McMichael, M.D., and "Injunctions to the Tuberculous Patient," by Charles Segal, M.D., contribute to make the number a valuable symposium.

What Became of the Patients!

Detailed information concerning the work of the King Edward Sanatorium, Tranquille, B. C., is contained in the Sixth Annual Report (1912) of the Directors of the Anti-Tuberculosis Society of the Province of British Columbia, Victoria, B. C. The medical Superintendent's Report includes a table dealing with the present condition of patients discharged during the four years previous to December 31, 1911. Concerning this investigation of the permanency of results the report states that:

"An effort has been made to trace up all patients discharged from the Sanatorium for over a year. This shows that, out of a total of 209 cases discharged from one to four years ago, 178 have been traced and reported upon, leaving thirty-one, or 14.8 per cent, as unknown.

"Of the incipient cases reported and discharged from one to four years, 84 per cent are living, and in most cases working and earning a living. Of the moderately advanced cases reported and discharged from one to four years, 47 per cent are living and 53 per cent are dead. Of the far-advanced cases only 5.6 per cent are living and 94.4 per cent are dead.

"This shows the extreme importance of diagnosing tuberculosis in its early stages if we are to hope for a cure; tuberculosis is a curable disease, but only when it is diagnosed and treated in its early stages."

Washington's White and Black Death Rate

"Buying a City's Health" is the title of the twenty-page, Fifth Annual Report (1913) of the Association for the Prevention of Tuberculosis of the District of Columbia.

The comparison of the decrease in death rates among the white and colored people since 1881 is particularly interesting. Deaths among the whites have decreased from 298.9 per 100,000 in 1881 to 119.9 in 1912, while the blacks show a decrease from 687.2 to 425.6 per 100,000 during the same period. In other words the white death rate has decreased 59.5 per cent, while that

of the blacks has decreased only 38.1 per cent. The number of whites and blacks in the city are about equal, but the death rate of the blacks has always been more than twice that of the whites.

The more than four hundred contributors and members of the association have given sums ranging from $1 to $100, there being a large number who gave $5, $10 or $25 during the year.

For Tuberculous Children

Less than one year ago the Queen Mary Hospital at Weston, Ontario, was opened for boys under fourteen, and girls under sixteen, suffering from tuberculosis. This hospital, with a capacity of eighty, is located on the banks of the Humber, near the Toronto Free Hospital for Consumptives, and the King Edward Sanatorium. Dr. W. J. Dobbie is physician in chief of the three institutions. The first annual report of this children's hospital should make extremely interesting reading.

Report of the Canadian Association

"The Thirteenth Annual Report of the Canadian Association for the prevention of Tuberculosis" includes the "Transactions of the Annual Meeting, held in Ottawa, Ontario, March 12 and 13, 1913. The volume also contains reports of the various local associations and sanatoria, and a directory of anti-tuberculosis institutions and organizations in Canada. The report of the secretary, George D. Porter, Esq., M. B., Bank Street Chambers, Ottawa, says: "If there has been diversity of opinion in the past regarding the best methods of dealing with tuberculosis there is now practically unanimity as shown by the action of these various provinces, regarding at least the necessity for providing local institutions for the advanced cases."

Sanatorium for Foresters

The Rainbow Sanatorium for Tuberculosis, located at Rainbow Lake, "The Adirondacks," New York, and conducted by the Independent Order of Foresters, has issued its second annual report (1912). Of the 175 patients treated during two years, 114 came from 17 states in the United States, and 61 from 7 provinces in Canada. Members of the Order, men and women, are not charged for treatment. Application for admission should be made to T. Millman, M. D., Supreme Physician, Temple Building, Toronto, Canada.

One Kentucky County

The "First Report of the Fayette Tuberculosis Association," 618 Main Street, Lexington, Ky., gives an outline of this county organization work from August, 1910, to January, 1913. Chiefly due to the effective work of that association, Fayette County, by a referendum vote of the people in the fall of 1913, was declared a district for the erection of a tuberculosis hospital under the existing state law.

A Winning Fight

"I found that many failed because of delay in acknowledging the necessity for effort," is the verdict of Emeline L. J. Hilton, in the story of her successful fight against tuberculosis, entitled "The White Plague, a Relation." Mrs. Hilton not only tells her own story, but comments upon the other patients whom she met in Colorado Springs, and the disastrous results following their failure to really fight. Her own success seems almost entirely due to faithfully following instructions. For copies, address the author, 324 N. 15th Avenue, East, Duluth. 23 pages, paper cover, $.50 each.

Blazing the Trail in Buffalo.

The Fourth Annual Report of the Buffalo Association for the Relief and Control of Tuberculosis entitled "Blazing the Trail" consists of 86 pages of reading matter interspread with half-tone reproductions and cartoons.

The results obtained in the four years of the Association's active existence as described in the report, are most encouraging and indicate an active and effective campaign. An interesting chapter of the report deals with the Traders' Union Section. By the plan described the Association secures the active co-operation of a large number of the unions in the city. To quote the report, "The Section has not confined its interest merely to tuberculosis as a disease, but with the view that the disease is really a social malcondition, has extended it to industrial diseases which are the result of this same malcondition."

Present and assured hospital and sanatorium facilities, clinics, camps, open-air schools and the Seal Campaign are among the topics which furnish interesting reading.

Medical Inspection of Schools

The United States Public Health Service has reprinted "Medical Inspection of Schools," a lecture delivered at the Summer School of the South University of Tennessee, Knoxville, Tenn., by Dr. J. W. Schereschewsky, of the U. S. Public Health Service. Copies are obtainable from the Superintendent of Documents, Government Printing Office, Washington, D. C., at five cents per copy. Dr. Schereschewsky prefaces his remarks by stating that medical inspection of schools may be traced back to the foundation laid by Lock and Rousseau in the eighteenth century. He explains why medical school inspection may be demanded, or established by the state. The scope of medical inspection of schools, extent of defects among school children, and the more important defects and diseases among school children, are among the topics discussed. The part played by the teacher, the school physician, nurse and clinic, are described. Following is a quotation concerning the country school: "Everything that applies to medical inspection in cities applies with even greater force in the country, and the need is also greater." The information con-

tained in this fifteen-page leaflet covers concisely the general proposition of medical inspection of schools.

This reprint should be in the hands of every educator, public health and social worker or other person interested in the health of school children in the country.

Early Diagnosis and Municipal Control

According to the 1912 "Report of the Tuberculosis Nurses' Division, Health Department," Baltimore, Md., the city is divided into sixteen districts with a trained tuberculosis nurse in charge of each and over all a superintendent of nurses. Of the 1,189 deaths in the city from tuberculosis during 1912, 856 were known to the nurses and under their supervision. Indicating the great need for early diagnosis and discovery of cases, the report shows that of the 856 deaths, 188 occurred within one month after being reported, 115 within two months, 68 within three months, and 73 within four months.

Exactly fifty per cent of the year's deaths occurred within four months after they were discovered. Of the 856 deaths during the year, 655 were visited less than one year, 114 less than two years, and 87 less than three years. The report continues, "We are attempting to do the impossible. Our present knowledge of tuberculosis gives us most meagre weapons wherewith to fight it—education and a limited amount of segregation. Neither very effective in so extensive a fight, but the best we can do under the circumstances. Yet we offset what results we might obtain, even through these slender means, by our timidity in dealing with the situation. Instead of placing the control of this infectious disease with the municipal authorities, we continue to leave it in the hands of the private physician."

Many readable and interesting tables of figures, together with the text of the report, furnish illuminating information on the nurses' work and the need for an efficient chain of dispensaries to facilitate early diagnosis.

Patients Work for Treatment

"As much as $3.00 a day has been earned by some of the girls," according to the First Annual Report of the Arequipa Sanatorium for the treatment of early cases of tuberculosis in wage-earning women, Fairfax, California. The Second Annual Report (1913) states that of the seventy-six patients cared for during the year, thirty-three paid for themselves by making pottery. The sanatorium, beautifully located an hour's ride from San Francisco, treats its patients for one dollar per day, and fifty cents extra for bed patients. Medical service is donated. Richard C. Cabot, M. D., writing of the institution in the December 7, 1912, Survey, says concerning the making of pottery at Arequipa by patients to pay their expenses, "What is done at Arequipa is done, so far as I know, nowhere else in the world."

A Lecture for Children

In a paper read before the State Graduate Nurses' Association of Indiana, October 16, 1913, Miss Sarah B. Helbert, R. N. School Instructor of the Anti-Tuberculosis League of Cincinnati, Ohio, outlined her method of "How to Teach the Prevention of Tuberculosis to School Children." The paper has been reprinted from "The Lancet-Clinic," and copies may be obtained from the author, at 209 West 12th Street, Cincinnati. Miss Helbert always gives a reason for the suggestions she makes to the children for promoting their health. She uses several apt illustrations and similies, in one of which she compares the child to a flower, the face being the blossom. The healthy plant, the sickly plant and the weed are described, and how the two latter may be changed to health plants and kept so.

First Aid

The American Red Cross has just issued four separate 150-page editions of FIRST AID (P. Balkiston's Son & Co., Philadelphia). The texts of the "Police and Firemen's," "Railroad," and "Women's" editions are prepared by Major Charles Lynch, Medical Corps, United States Army. The "Miners'" edition is prepared by Major Lynch and 1st Lieut. M. J. Shields of the Medical Reserve Corps. The four volumes are essentially the same with only such special features in each as the titles would indicate. Price, 30 cents each, heavy paper bound.

"Taking It In Time."

"A Personal Letter to the Consumptive and the near-Consumptive" by an "Ex-consumptive" comprises a 12-page leaflet entitled "Taking It in Time." Published by the Chelston Press, Atlantic City, N. Y. Price, five cents a copy. The author is G. B. Price.

The pamphlet is devoted to warning the individual consumptive, or those who suspect they may have the disease, against procrastination in dealing with his disease, and with rules which a patient should observe in order not to infect others. It is written in the form of a personal letter.

* * *

The report of Health Officer, Charles V. Chapin, of Providence (R. I.) for 1912 shows 336 deaths from tuberculosis and a death rate of 142 per 100,000 population, the lowest on record.

* * *

Bulletin No. 3, Vol XIII, of the Vermont State Board of Health contains an important study of tuberculosis among the marble and granite workers of that State.

NOTES AND NEWS

Monument Erected to Koch in Kamakura

A monument erected recently to Dr. Robert Koch in Kamakura, Japan, bears the German inscrpition, "A monument to Robert Koch, whose favorite resting place this was." Mrs. Koch has thus translated the Japanese tribute:

"In the forty-second year of the reign of Meidji, in the seventh month, the great German physician and teacher, Koch, professor in Berlin, came to Kamakura. He pitched his tent here on the Mountain of Spirits and morning and evening he walked about with Professor Kitasato to enjoy the beauty of the mountain and temple. After a time he returned to his western home, where he died soon after. The owner of the mountain has joined with the others in erecting this monument in commemoration of Koch's beloved spot. This place was chosen, around which the waves of the sea dash and storm, and above which gleams the snow-white peak of Fuji-no-yama, already renowned in older times through the great battle of the famous Japanese hero, General Nitta. Here, by Inamuraski, he cast his sword into the sea, and hither came the great man from across the ocean, looked across to Fuji and loved the place. Therefore, let this stone remain here as a lasting memorial. Written in the first year of the reign of Talisho, in the ninth month, by Nagasaka-Shuki."

Extending Sanatorium Treatment

A novel and interesting organization has recently been formed under the title of the Catawba Sanatorium Alumni Association. According to the constitution, the membership consists of patients and ex-patients of the Virginia state tuberculosis institution, Catawba Sanatorium, and honorary members, or those persons not patients, who are in close sympathy with the purposes of the Association. The chief purposes of this unique body are twofold:

First, to stimulate patients after leaving the sanatorium to continue in everyday life those lessons of care and precaution learned while in the sanatorium, and to disseminate useful and practical information concerning tuberculosis among the people of the state.

Second, to support a free bed in the institution for any patient who from lack of funds might be forced to leave the institution prematurely.

Two or three sub-committees have to do with the reception of new patients, entertainment, etc., at the sanatorium. In addition to its stated purposes, the Association is, through its members and friends, working to secure from the legislature much needed additions to the limited facilities at Catawba. So far as we know this is an entirely new departure in the field of tuberculosis endeavor. Since after-care of patients presents one of the most baffling of tuberculosis problems, workers will read with more than passing interest the annual reports of this Association, in the hope that even a partial solution to the problem will be worked out. Its possibilities are far from limited.

Indiana Secretaries Organize

"The name of this organization shall be The Indiana Conference of Secretaries of Anti-Tuberculosis Societies," reads the constitution of this organization, formed recently at Indianapolis by the Indiana Association for the Prevention of Tuberculosis. The Conference, which is to gather annually at the time of the State Association meeting, has co-operation for its key-word, co-operation with local, state and national bodies and in devising ways and means to further the campaign in Indiana. This Conference, which is the first state organization of its kind, and is modeled after the National Conference of Tuberculosis Secretaries, has elected as its president W. D. Thurber, Executive Secretary of the State Association.

It was suggested by the Conference that the State Society employ one or more trained visiting tuberculosis nurses and work out a schedule by which they may be routed over the state. The tentative plans provide that they shall be placed at the disposal of county and city anti-tuberculosis societies for periods of from one to ten weeks. The local society will pay a salary of $20 to $25 a week and furnish suitable quarters for the nurse. The nurse will be expected to meet the expense of her meals and traveling. The nurse will be prepared to deliver talks on tuberculosis in the schools, address women's clubs and other organizations, increase membership in the local society, to start a campaign for a county tuberculosis hospital, and visit tuberculous patients in their homes.

Personal Mention

H. Wirt Steele, who has held the position of Executive Secretary of the Maryland Association for the Prevention and Relief of Tuberculosis since April 1, 1905, has resigned and is now devoting the greater part of his time as secretary to the City Club of Baltimore. Mr. Steele began social work with the Chicago Bureau of Charities in 1898, previous to which time he was engaged in newspaper work in Indiana.

Miss Edythe L. M. Tate, formerly of the Wisconsin Anti-Tuberculosis Association, and later with the National Progressive Party headquarters in New York, has recently been appointed Tuberculosis Inspector by the Wisconsin State Board of Control.

Wallace Hatch, for nearly five years Secretary of the Rhode Island Anti-Tuberculosis Society, has resigned to take the position of Assistant Chief of the Department of Educa-

tion in the Panama-Pacific International Exposition. He will remain in Washington until shortly before the opening of the exposition. Mr. Hatch was at one time connected with the Chicago Bureau of Charities, the Pennsylvania Society for the Prevention of Tuberculosis and other forms of social work.

Miss Jessamine S. Whitney, who has recently completed a survey of the tuberculosis situation in Georgia, has been appointed Executive Secretary of the W. G. Raoul Foundation, which is waging a state-wide campaign against the disease. Miss Whitney, who is a graduate of Cornell University, has conducted several successful investigations, notably one of child labor conditions in the cotton mills of the South. She is an expert vital statistician and a thoroughly trained social worker.

Dr. Martin F. Sloan, Superintendent of Eudowood Sanatorium, Towson, Md., has been engaged for three months as an expert to introduce the artificial pneumothorax treatment of pulmonary tuberculosis at the United States Public Health Service Sanatorium, Fort Stanton, New Mexico.

Tuberculosis Legislation

Although this the "off" year for legislatures, several interesting bills are being considered before most of the bodies now in session.

A bill has been introduced in the Mississippi State Legislature providing for the building and maintaining of tuberculosis hospitals by county authorities, with certain peculiar subsidy provisions.

In Maryland a bill providing for the establishment and maintenance of county tuberculosis hospitals or camps has been introduced. Sixteen states have enacted county tuberculosis hospital laws of this character.

A bill has been introduced in the South Carolina Legislature appropriating $10,000 for the building of a state tuberculosis hospital. This is the first time that tuberculosis legislation has received serious consideration in South Carolina.

Of the several bills bearing on the tuberculosis problem which have been introduced in the Massachusetts Legislature, one of considerable note provides that cities and towns may incur indebtedness outside the debt limit for the building of tuberculosis hospitals. Other bills embodying the provisions recommended by the Recess Committee of the legislature will be introduced.

Employees' Tuberculosis Relief Association

The New Haven (Conn.) Employees' Tuberculosis Relief Association reports that during the past year it has placed 74 new patients in sanatoria, and in addition taken care of those relatives of the patients who needed assistance. The report of the treasurer shows total receipts for the year of $15,017.43, of which $8,204.96 was contributed by firms affiliated with the Association, and the remainder by the employees themselves. This is one of the most recently formed organizations of this kind in Connecticut, similar ones having been started in Hartford, New Britain, Meriden and South Manchester several years ago.

West Virginia's Tuberculosis Car

During its 1913 session, the West Virginia State Legislature appropriated $9,900 for an educational tuberculosis campaign. This money is being spent by the West Virginia State Tuberculosis Association in sending a car exhibit through the state. The car, which is in charge of Dr. Thurman Gillespey, is preceded a few days by Dr. Harriet B. Jones, who lectures to the school children during the day and at a general meeting at night. It is transported free by the railroads of the state, and has been in Southern West Virginia since the holidays. It has already visited 25 counties and 80 towns and has had about 50,000 visitors. It will be kept in the field two years.

Rural Death Rate in New York

The January number of the S. C. A. A. News, New York, prints an interesting chart comparing the fall in the death rates from all causes of New York City and Rural New York State (villages of less than 8,000) for the period 1900-1913. During this time the city rate fell from 20.6 to 13.7 per 1,000, while the rural rate changed from 15.5 to 15.4 per 1,000. Because of this showing the State Grange recommended to the State Commissioner of Health that a division of Rural Hygiene be added to the State Health Department. The Commissioner is in entire sympathy with this recommendation. The granges of the state have again been active in the sale of seals and to February 2nd had reported a fund of $1,950 which is to be used for tuberculosis work in rural New York. A statement issued by the Tuberculosis Committee of the State Charities Aid Association says that twenty counties of the state have hospital provisions for their consumptives, while nine more are looking for sites or have already secured them.

Ithaca and the Children

Unusual interest in Anti-Tuberculosis Work for children was shown at the first annual meeting of the Cayuga Preventorium held at Ithaca, New York, February 23rd. The Preventorium was incorporated and definite assurance developed that the work of the coming year will be even more effective than that of the preceding. From the illuminating account of her work given by Miss Charlotte Underhill, the local visiting tuberculosis nurse, we take the following quotation as an illustration of the "family cluster": "In thirteen families there are fifteen adult cases of tuberculosis. In four of these families both father and mother are infected. There are forty-six children in the thirteen families, thirteen of whom already have pulmonary trouble and seven more have tubercular glands. Thus twenty of the forty-six already are infected, while the other twenty-six are in grave danger."

Can Medicine Circulars be Censored?

The government's right under the pure food

law of 1906 to censor circulars enclosed in packages of medicine is to be passed upon by the United States Supreme Court. Department of Agriculture officials claim that the public is being deceived every day by exaggerated statements of the efficiency of nostrums to effect all kinds of miracles. They claim that the pure food law was enacted to wipe out this evil. Manufacturers of medicines, however, contend that the pure food law merely authorized government officials to see that labels are put on medicines and did not confer any authority over circulars enclosed in packages. The dispute between the government and the manufacturers came to a sharp issue in Omaha, Neb., recently, when the government seized thirteen cases of patent medicine. Each package contained the statement on enclosed circulars that "we know it has cured and that it will cure tuberculosis," and a further statement that "it was effective as a preventive of pneumonia." The federal district court of Nebraska held that the medicine was misbranded under the pure food law. The manufacturer has appealed to the Supreme Court on the ground that the pure food law deals with labels and not circulars and furthermore that the law, as interpreted by the Nebraska court, is unconstitutional insofar as the court held that the law ought to give the government a right to pass on opinions as to the curative effect of medicines.

Recently Reported "Cures"

From time to time the press continues to give accounts of alleged "cures" for tuberculosis. There is considerable amusement to be found in the widely different and the sometimes absurd methods prescribed. Following are a few of the more interesting "cures":

From Pittsburgh, Pa., for example, comes the report of one Samual H. Cole of York, Pa., who in an effort to cure tuberculosis of the bones of his feet is walking barefoot, with a companion, to San Francisco.

The Fort Wayne, Indiana, "News" is authority for the story of Charles Harbur of that city, who believes that a diet of dog-meat and dog-tea is curing him of tuberculosis. The healing properties of dog-meat are stated in a German tradition dating back hundreds of years. The local visiting nurse ascribes the young man's improved condition to the following of her instructions on living and sleeping in the open and to eating plenty of good food.

From Paris comes the report that Dr. Van Stockum of the Rotterdam Hospital is experimenting with cow's spleen as a cure for tuberculosis. The grayish powder which is extracted from the spleen after it has been exposed to the X-ray for a number of hours is administered to the patient.

Some Gifts of Note

Mr. W. J. Gage of Toronto has donated $100,000 to The National Sanitarium Association of Canada to assist needy patients in Muskoka Free Tuberculosis Hospital, Gravenhurst, Ont. This recent donation makes a total of gifts by Mr. Gage to the tuberculosis

movement in Canada of over one-quarter million dollars.

The Detroit Tuberculosis Sanatorium has announced a gift of $12,000 from Mrs. H. E. Dodge of Grosse Pointe Village, Michigan, for the erection of a children's pavilion in connection with the sanatorium in Detroit. The new building, which will be erected immediately, will provide for the care of 20 tuberculous children.

The Sanatorium of the New Bedford Anti-Tuberculosis Association at Sassaquin, Mass., is to be enlarged by a new infirmary, the gift of Mrs. William N. Swift in memory of her husband, Dr. Swift. Dr. Swift was an enthusiastic anti-tuberculosis worker and it was due largely to him that the present institution came into existence.

Through the generosity of Mrs. M. R. Bissell, Mr. Bissell, Jr., and R. E. Becker, the Grand Rapids (Mich.) Anti-Tuberculosis Society has come into possession of a Ford touring car for the use of the nurses. Two years ago the Hupp Motor Company donated one of its runabouts to the society for the same purpose. The work of the nurses is greatly facilitated by the machine.

A donor whose name has not as yet been revealed has offered to the State Anti-Tuberculosis Commission of Louisiana one thousand acres of land in Rapides Parish, La. The property, which is in the midst of pine woods, will make an excellent site for a tuberculosis hospital.

The Civic Association of Durham, N. C., is soon to realize its hope of building a tuberculosis hospital for Durham County. Broadie L. Duke, the well-known tobacco manufacturer, has offered the Association a site for their institution, provided one suitable for the purpose may be found within the limits of the large amount of property which he owns in the county. It is expected that this will not be difficult.

Federal Hospitals for Consumptives

At the instigation of the Southwestern Conference on Tuberculosis and the Texas Public Health Association a bill has been introduced in the United States Senate by Senator John F. Shafroth of Colorado, and in the House of Representatives by Hon. Oscar Callaway of Texas, providing for the establishment of Federal hospitals for the care of indigent consumptives. These hospitals are designed to care for the people from the northern and eastern states who come to the West and Southwest seeking health or a longer lease of life. Many of these people become public charges in a short time after their arrival and go from city to city seeking work or a free hospital. It is planned to use abandoned forts and other government property not now in use for the hospitals.

To Help the Indian

An item of $400,000 has been inserted in the Indian Appropriation Bill at Washington to cover the expense of building hospitals and conducting a sanitary campaign among the Indians of the United States and particularly

Potters Plan Farm Hospital

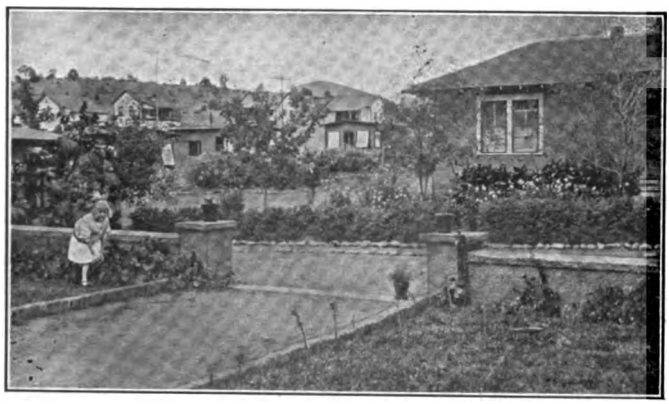
For the use of its convalescent members who are recovering from tuberculosis, the National Brotherhood of Operative Potters are planning the purchase of a farm near Trenton (N. J.). The prevalence of tuberculosis among workers in this trade has long been a source of anxiety but it is only recently that vigorous action to protect the men has been undertaken. Employers are showing a willingness to co-operate and have recently contributed $5,000 to help finance any plans which might be necessary in health work for the men. The men themselves raised a fund of $10,000. Sanatorium treatment has been given many workers under this fund. The results have not been entirely satisfactory because the men returned to their work too soon. Through the farm it is hoped to extend the period of convalescence and thus effect permanent cures.

Completed New Hospital in Iowa

The new hospital in Scott County (Ia.), has been completed and is now ready for occupancy. It was built at a cost of $71,000 and will accommodate forty patients. The county voted a bond issue of $50,000 for the purchase of the site and the erection of the building. In addition the mill tax available for the annual support of the hospital will total $20,000. Part of this sum will be devoted this year to the furnishing and equipment of the hospital. This is the first hospital in Iowa under the County hospital law.

NEW MEXICO COTTAGE SANATORIUM

SILVER CITY, NEW MEXICO



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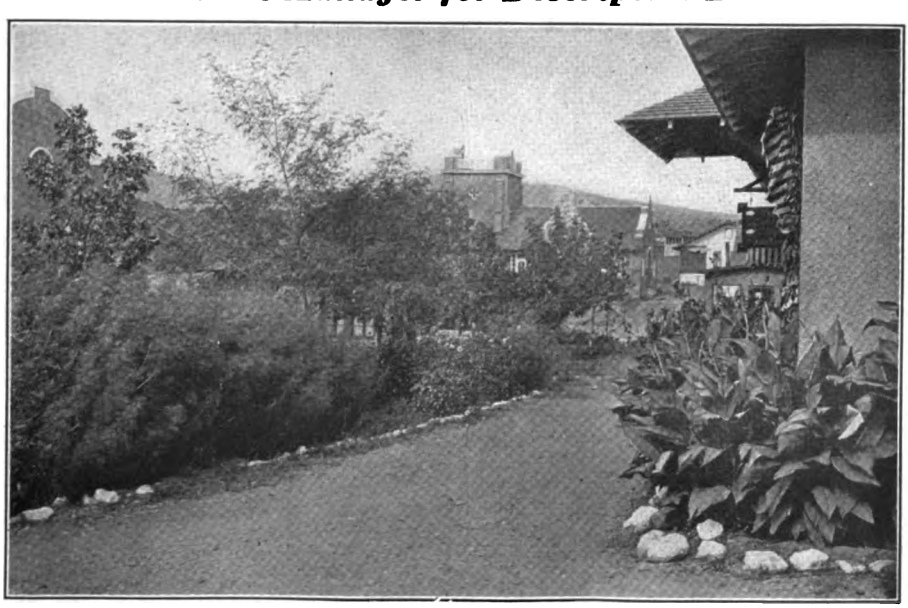

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Vol. XI
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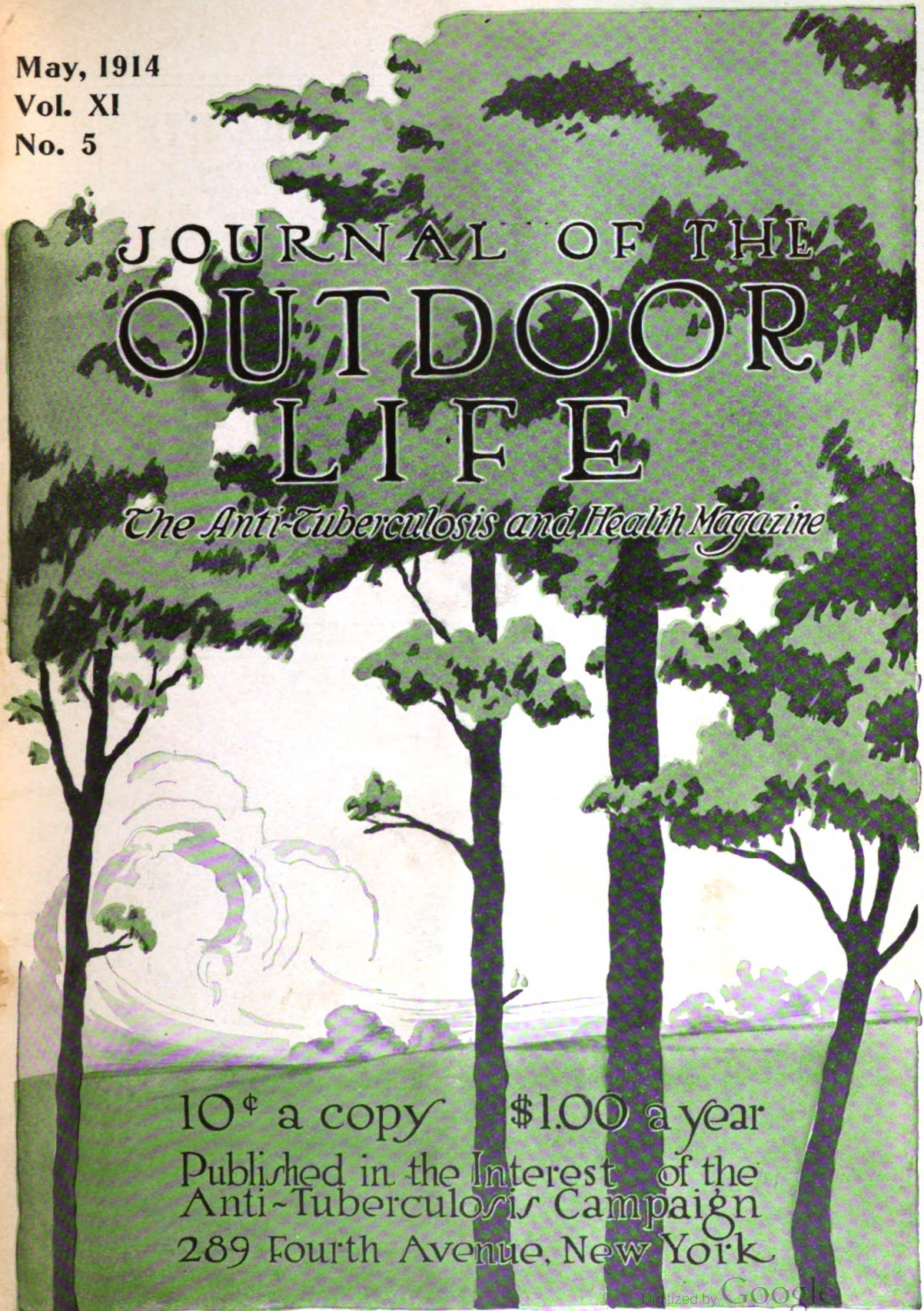
The Anti-Tuberculosis and Health Magazine



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Journal of the Outdoor Life

VOLUME XI MAY, 1914 No. 5

Contents

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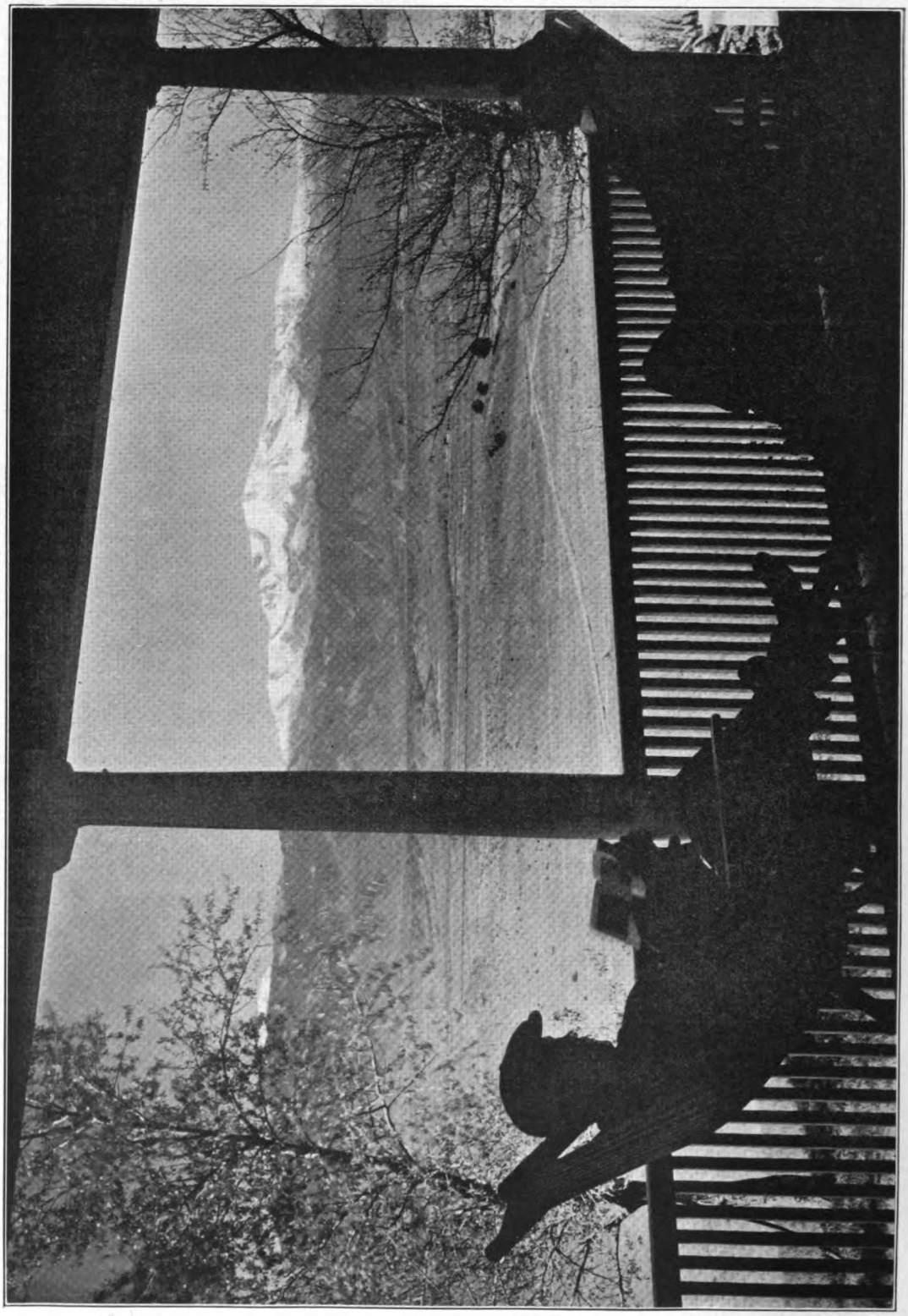

"BEYOND, THE SNOW-CAPPED RANGE OF THE ROCKIES"

Vol. XI MAY, 1914 No. 5

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PRACTICAL APPLICATION OF SANATORIUM TREATMENT FOR TUBERCULOSIS

BY HARRY SAMUEL NEWHART, M.D., ASSISTANT PHYSICIAN, NORTH READING STATE SANATORIUM, MASSACHUSETTS.

Sanatorium treatment of the present day offers without a doubt the best results for the tubercular patient, to the exclusion of all other means. But the question arises, Do we obtain the best results possible under the sanatorium treatment? This I may answer by "Yes and No." Yes, because if rigidly followed it will certainly produce results very pleasing to both patient and physician. No, because few patients will persevere long enough to establish the rules laid down to them after admission.

Sanatorium treatment implies proper care of sputum and person, continual living in the open air, a well regulated seasonable diet, rest and exercise suitable to the individual's needs, cheerfulness and contentment, and recourse to suitable therapeutic measures. The newcomer usually glances over these fundamentals, perhaps only too lightly and thinks, "Well, that certainly looks easy." But after a few weeks' sojourn he seems to forget all about the essentials necessary to good treatment. In many instances he seems elated

OVERDOING A GOOD THING.

in varying the treatment, and, in doing so, thinks that he has "gone the doctor one better" and that no one will be the wiser for his indiscretion. This is very unfortunate for the patient, as many symptoms of renewed activity are antedated by such wilful disregard of the scheduled treatment.

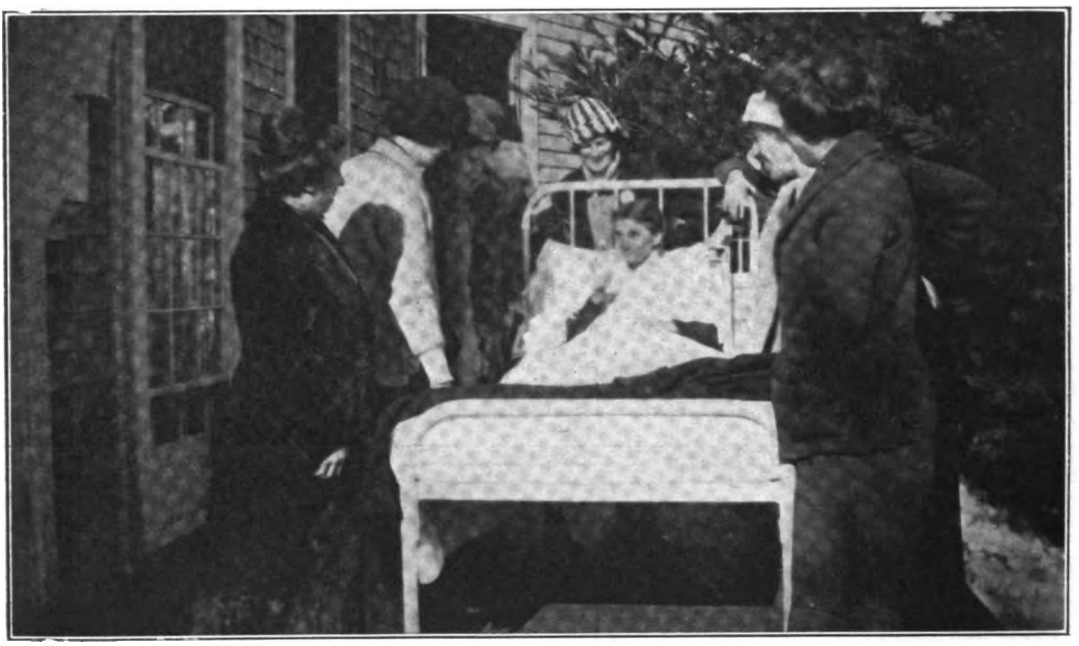
In undertaking the sanatorium treatment we must not think that one-half of the regime is good enough, and then after failure say, "Well I have taken the treatment and it has not done me a bit of good, in fact I am worse." For a patient is doing himself alone the great injustice when he harbors the idea that all he has to do is to live out in the open air and replenish a good appetite. To assume such an attitude to the exclusion of all other well tried measures, can do nothing but bring the patient to naught. usually sooner than he anticipates.

It has been interesting to me to note the many successes and failures in individuals following sanatorium treatment, which affords such maximum advantage for any patient who really wishes to put up a fight against ravages of pulmonary tuberculosis. Time and space, however, do not permit me to enumerate the many details incident to the ways in which various patients alter their treatment, thereby missing their one opportunity for improvement.

Since we have inaugurated the so-called sanatorium and hospital classes, we have more success in holding the patient's symptoms in abeyance. This classification clearly defines the distinction between those who want to receive the greatest possible benefit from the actual sanatorium treatment at the same time expressing their willingness to cooperate, and those who prefer to take treatment on the instalment plan according to their own fancy.

In the treatment of tuberculosis the cessation of symptoms, both local and constitutional is what is desired, to the end that the patient may be able to resume some occupation suitable to his individual condition without a relapse. It is all important then that a patient acquaint himself with the conditions necessary to recovery as soon as possible after he has been informed that he is tuberculous, and that he make these conditions a permanent part of his life thereafter. One can hardly attain any degree of success unless he is willing to accept the whole plan and be guided by the conditions which have been tried long ago and not found wanting.

Each patient should permit the physician to be his sole arbiter in all matters pertaining to any divergence from the regular treatment, instead of acting first on his own initiative and when repremanded, saying, "I did not think," or "I thought it would not do

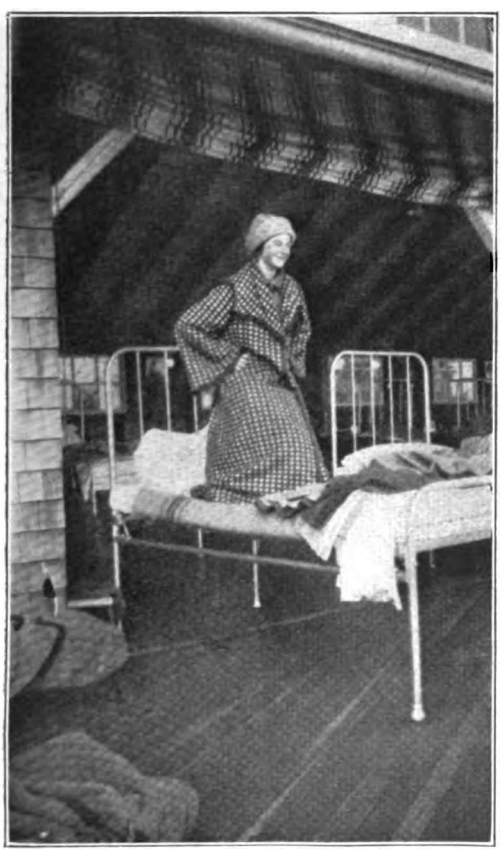


OVER-VISITED.

The harmful results of such exercise is often noted after the usual Holiday and Sunday visitation, by an increase of annoying symptoms, a sharp elevation of temperature and an increase of the pulse rate. In the more extreme cases we have noted irreparable harm, and in a few instances fatal results. The writer recalls a patient who died in three minutes from hemorrhage after spending twenty minutes discussing a family row.

me any harm," and if it did, "I thought by to-morrow matters would be mended."

In following the sanatorium treatment, most patients do fairly well except where it applies to rest and exercise. Rest, a condition so necessary to the subsidence of unpleasant symptoms, is adhered to but a short time by a large number who give various excuses to cover this error of omission. Unfortunately in tuberculosis we have a disease wherein the patient is so apt to be misled by his progress. So many fail to see the need of prolonged rest at the most opportune time, since in spite of their constitutional symptoms, they do not feel sick enough to remain in bed. It is no hard matter to enforce rest on one who is very ill. Here the patient is only too glad to remain quiet, probably, for no other reason than that his weakened condition will not permit him to do otherwise. Many patients, however, entertaining the idea that it would do them no harm, indulge in ill advised exercise when they are supposed to be at rest. This in many instances may seem of small moment in the beginning, but such exercise, increased from day to day, little by little finally obscures the patient's original good intentions.



INDIVIDUAL CHOICE OF EXERCISE.

TREATMENT ON THE INSTALMENT PLAN.

For the patient whose condition is active, rest is paramount. When rest is prescribed, he must accept it as evidence that his condition warrants its application in the fullest detail, and that any deviation from that rest program, be it in bed or otherwise, must be subjected first to the physician's opinion. To many patients, rest appears after a faithful trial, a prolonger hardship. Some require a longer time than others to bring about a change for the better.

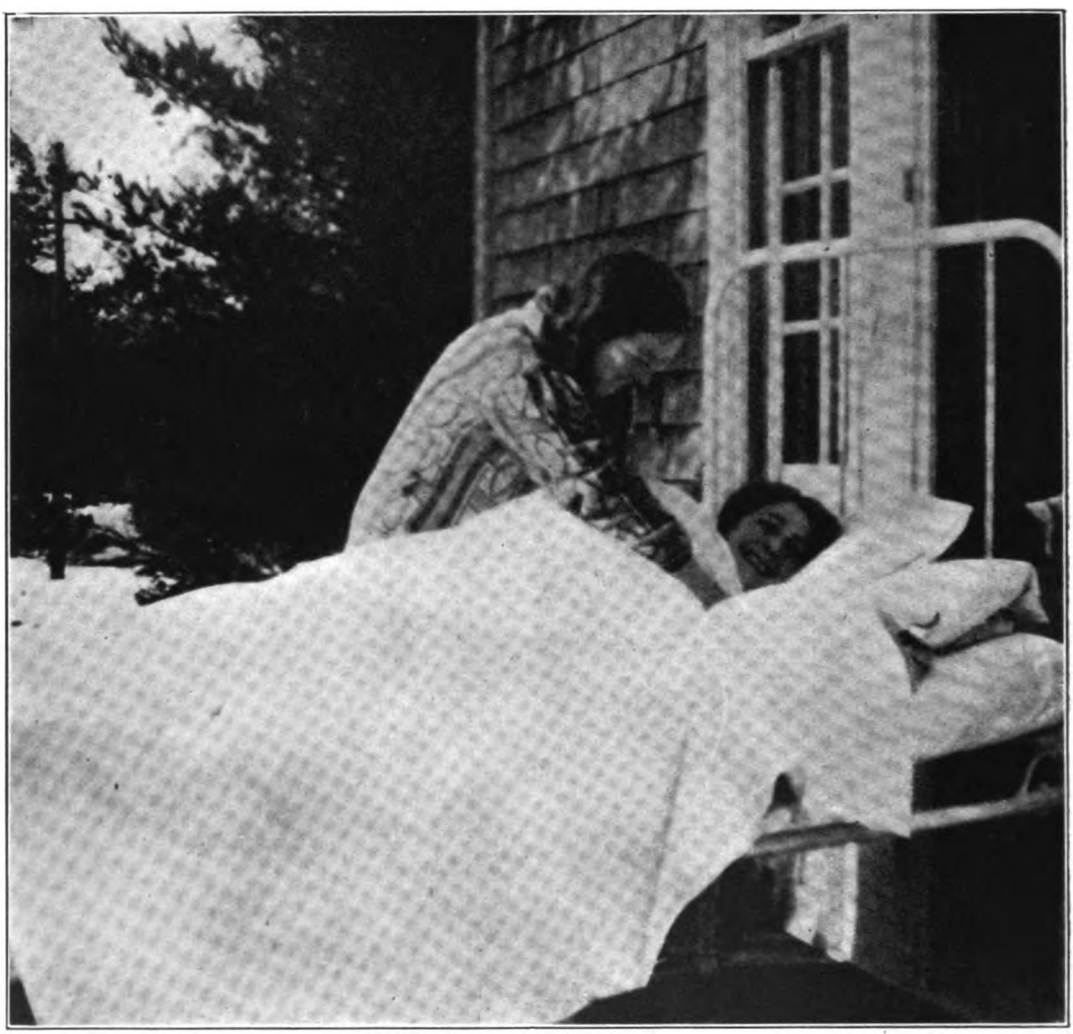
The writer recalls a patient who after a prolonged rest in bed for six months, during which she had alternate periods of streaking and hemorrhages with very active physical signs, eventually become quiescent, and was finally discharged as such. She is to-day able to do a light amount of housework. Another case who was admitted to the sanatorium over three years ago as a hopeless, dying case, is living and apparently well to-day. In this case rest was faithfully carried out until all symptoms were in abeyance. She to-day is able to exercise to the extent of three hours daily. These are only two among many who have thought it worth while to persevere until they obtained the desired results. It is important then, that you do not vary the rest as prescribed for your own individual case and if you feel that you have occasion to do so, first consult your physician.

Exercise, which is of secondary importance to rest, must be as faithfully carried out. One cannot expect to alter the normal mode of living without the production of annoying symptoms. We were not made to rest always, and consequently it is important to bring the individual back to his normal activity as soon as it is consistent with his condition to do so. Exercise is an essential to good health even in those who are well.

Now we cannot suppose that anyone with tuberculosis whose symptoms are in abeyance, could feel well unless he assumed some well regulated exercise. Certainly the majority expect to take up an occupation at some given time. It is accordingly all-important then that the patient attempt to increase his resistance sufficiently to enable him to with-

stand the exertion incident to his respective calling. Altogether too many patients consider the small amount of exercise as it is regulated by the physician burdensome. They would rather be free to choose their own course, failing to see that their judgment in this matter is not to be trusted. This apparently easy way of taking the treatment cept the regime of well regulated exercise cheerfully and with the zeal characterized by one who is really looking for improvement.

This matter of exercise is very important since it is the final means whereby the physician is able to determine the advisability of permitting the patient to resume his former occupation. Every tuberculous patient



FEVER CASES DISREGARDING REST.

either means too much or too little exercise. Usually it is the former, since so many patients will watch every chance they can get to exercise and think that so long as they are not caught at it, no harm is done. This action on the part of the patient is to be discouraged. The patient can not expect to obtain much relief from his condition after such tactics; it is very important that the patient co-operate with the physician and accowes it to society, if not to himself, to do everything possible to improve his present condition.

It is the earnest hope of the writer that these remarks covering a rather general matter, will nevertheless specifically impress the reader with the real seriousness involved in taking the sanatorium treatment, and will prevent him from deceiving himself by treating this great problem in a lighter vein.

SUBJECTIVE SYMPTOMS OF PULMONARY TUBERCULOSIS AND THEIR SIGNIFICANCE TO THE PATIENT

BY G. L. BELLIS, M.D., ASSISTANT MEDICAL DIRECTOR, WISCONSIN STATE SANATORIUM, WALES, WISC.

Getting well from pulmonary tuberculosis and keeping well after the disease process has once been arrested is replete with many items of commanding and appealing interest to the patient. Not alone should he be a past master in the art of providing himself with the very best hygienic and sanitary surroundings, but he should also possess a practical knowledge of such manifestations of the disease as will materially aid him in accomplishing the thing he has set out to do. It has oft been said that a little knowledge is a dangerous thing, and just so it may prove to the one, who, after a brief acquaintance with sanatorium life, takes active command of his own forces and proceeds to demonstrate a short cut to the Haven of Health. It is not intended that ever so thorough an understanding of the subject matter under consideration will equip any patient with a medical education; enable him to dictate his own treatment; or to even allow of the flattery, that he may now discharge his doctor and nurse and go on his way rejoicing. Tuberculosis will still remain a problem calling for the highest order of medical skill and supervision.

Symptoms of all diseases are divided into two great classes; namely, subjective, those appreciated by the patient; and objective, those signs of disease discerned by the physician in his examinations. Tuberculosis occupies a peculiar position in this respect. In contradiction to the majority of ailments, no patient can truthfully tell from his subjective symptoms just when his illness began, neither is he in a position to judge from the indications at his command when the disease process becomes arrested. This peculiarity constitutes the reason why the objective symptoms of pulmonary tuberculosis are inseparable from the intelligent treatment of the disease. The trained physician cannot be divorced from a close relationship to the taking of the cure and a dependable margin of safety still be left to the patient. On the other hand, subjective symptoms do play an important part in cure taking. A correct knowledge of their import constitutes a tower of strength to the patient in the elimination of much mental anxiety and enables him to more fully co-operate by the personal recognition of the danger signals blazing along the way. With this idea in mind we will proceed to review briefly the subjective signs of pulmonary tuberculosis.

"Run Down" Condition.

Early signs, those occurring long before the onset of unmistakable symptoms of consumption, are of course the extremely important ones if the patient is to be cured with ease and dispatch. These are subjective rather than objective symptoms and usually mark the beginning of a slowly developing disease process that finally rudely awakens its victim to a realization that something must be done, and that quickly. How often we hear the expression, "A run down condition." The person described his feelings as he imagines the condition of a clock must be that needs rewinding. There is lacking the snap, the mettle, or in vulgar parlance, the "pep" that ordinarily fires him with ambition. It requires special effort to do the things he is accustomed to do. This state of diminished health may be an early subjective symptom of tuberculosis and is excuse aplenty for thorough and repeated examinations by the family physician.

The failure of prompt recovery from an acute disease, or from an injury to the chest, is also often indicative of tuberculosis at work early in the game. Especially is it necessary to consider seriously this factor where a history of a previous exposure to infection obtains. Here the soil is prepared by lowered vitality; King Tubercle sprouts and scatters his seed; and the continued demand for the expenditure of vital energy prevents a full recovery from the initial illness.

Fortunate indeed is the person who recognizes the red-light danger signal in the expectoration of a little mucous tinged with blood, or the more bold exposure of the dis-

ease in a definite pulmonary hemorrhage. The chances are more than nine in ten that tubercle bacilli in their activity have approached too closely the congested capillaries, that rupture has occurred, with the result that red shows in the expectoration. He who disregards this defiant challenge of the microbes underestimates the strength of his opponent and usually finds himself struggling against much greater odds at a later date. To procrastinate the time for radical hygienic treatment, means a rapid multiplication of weeks and perhaps months in taking the cure.

A persistent tendency to the taking of colds, and a chronic catarrh of the upper respiratory organs must never be overlooked as possible subjective symptoms of tuberculosis, and if accompanied with a slow and steady loss of weight, their presence is especially significant. Would that everyone living today realize the importance of these early signs, for then would the Great White Plague cease to demand so long a time in our efforts at cure and failures would be comparatively few in number!

Coughing.

Coughing is intimately associated with tuberculosis of the lungs. It always suggests, even to the layman, the possibility of tuberculous infection as a cause of this symptom. Yet, how easy it is to say, "You have taken a cold"; "A stubborn bronchitis"; "An innocent throat irritation," etc. In the absence of a definite knowledge as to its cause, call it tuberculosis, and the chances are, you are right. We will consider two kinds of cough induced by tuberculosis, i. e., the unproductive and productive. The former usually precedes the latter in point of time, and may or may not continue as a companion to it during the course of the disease. Unproductive cough is due either to some irritation of the delicate nerve endings along the respiratory tract, usually the throat or bronchial tubes, or to the presence of tenacious sputum in the diseased area that can be raised only with difficulty. It is this kind of cough that must be suppressed, for the continued exertion can only result in harm. Concentrate, if necessary, all the mental energy you possess toward its control and you will be agreeably repaid. The sipping of hot water, or the chewing of gum (with due apologies to your neighbors, of course) will often be an aid in overcoming the distressing symptom.

The productive cough is Nature's method of draining the diseased area of the lung. Her work of digesting tubercle that the process of repair may begin and continue, means that much debris must be eliminated. It is the productive cough that serves this very useful purpose, and it should never be suppressed any longer than is necessary to provide a suitable receptacle. Sputum is waste material and if allowed to remain in the bronchial tubes increases the absorption of poisonous elements to be cared for by the other organs of the body, with possible symptoms of added illness. To make a productive cough serve its best purpose with the least degree of bad after-effects, learn to cough properly. When convinced that the inclination to cough is due to the presence of loose sputum, try to raise the mass by a series of short expiratory efforts. By continued training you will be able in a short time to accomplish all that is necessary without the violent and chest-racking attempts that are as harmful as they are common.

Pain.

Pain is a subjective symptom pure and simple, for it is appreciated only by the patient himself. Many patients feel but little pain throughout the entire course of treatment, while with others it constitutes the chief source of complaint. When present it possesses significance and demands attention. Lung tissue, itself, contains no sensory nerves and no matter how extensively diseased it may become, cannot give rise to pain.* To the patient who is obedient and cautious, this fact proves a blessing; to the wilful and careless, it is a curse, for the absence of sensory nerves permits the abuse of damaged lung tissue that otherwise would be impossible because of pain. It is the pleural covering of the lung and the muscles of the chest wall that are usually the seat of painful sensation. When deep and lancinating in character, the pleura is most likely disturbed; while a soreness or aching may generally be attributed to the overlying muscles. The degree of pain does not indicate the extent or severity of the disease process, for an exceedingly small area of involvement located directly beneath the pleura may give rise to the most intense suffering, and a much larger area more centrally located, never give an inkling in pain of its

*Nerve filaments following course of bronchiolics account for sense of discomfort in attacks of bronchitis, asthma, etc.

existence. It is well to remember that pain, confined to a limited area and quite constant in character, may be a forerunner of a hemorrhage, which can often be averted by strict attention to rest. Slight pains, fleeting and intermittent, are often present and usually due to coughing, sneezing, laughing, crying, or the taking of deep inspirations.

Pulmonary hemorrhage, usually considered a sympton, may be described as an accident common to many cases of tuberculosis. Tubercle bacilli seek to diminish the blood supply to the part invaded by constricting and finally annihilating the small blood vessels. This may be accomplished so successfully that many a case can go to a fatal termination without even so much as a drop of blood escaping into the expectoration. By far the largest number of hemorrhages from the lung consist of an oozing from the capillaries, and unless frequent and protracted, are claimed by some to result beneficially. This supposition, however, must not be accepted as an excuse for inviting such treatment of the disease. Very rarely the wall of a large blood-vessel is rendered weak and brittle from disease infiltration. As we have no means by which this state of affairs may be determined, it is especially to be condemned that any patient be allowed extraordinary exertion of any kind. To be thoughtless in this matter, jeopardizes the life of the individual. The presence of a hemorrhage should not frighten the patient, for excitement only adds to the danger of the occasion. He may be reasonably assured that by keeping calm in mind and at absolute rest, the flow of blood will soon cease and no ill effects follow. I do not wish to minimize the importance of careful treatment of this condition, but the abject fear I have seen shown by a few patients taken with a slight hemorrhage is out of all proportion to the disregard the same patients have shown when harboring other symptoms of graver import. It would be considered a joke were it not so serious.

Shortness of breath may be due to a number of causes. A decreased amount of lung tissue available for the carrying on of respiration; the filling of one of the larger bronchial tubes with secretion; continued use of the voice as in talking or singing; physical exertion; pronounced nervousness, etc., are perhaps the most frequent causes and emphasize the necessity for rest.

Hoarseness, due to a functional disorder of the larynx, or to the presence of tubercle in and around the vocal cords, is present in not a few cases of pulmonary tuberculosis. The condition should not cause undue worry, as the voice will ordinarily improve in tone and quality as the demand for use of the larynx in coughing and expectoration lessens. The use of instruments and the applying of medication in so sensitive an organ as the larynx have not proved beneficial in our experience, and it is doubtful if such measures should be used unless distinctly indicated.

Constitutional Symptoms.

There are a number of constitutional symptoms properly considered under the heading of subjective symptoms, a knowledge of the significance of which will aid you in patiently abiding the time of returned health. I refer to fever, rapid pulse, sweating, indigestion, nervousness, and disturbed sleep. All are present to a greater or lesser degree in every group of cases of pulmonary tuberculosis.

Fever is a word used to designate a rise in the temperature of the body. It ranges from a fraction of a degree to several degrees above normal and in tuberculosis shows every variation possible as to duration and time of appearance. The presence or absence of fever is the most reliable indicator we possess of the attitude of the body toward the disease process in the chest. As a rule, fever means activity; normal temperature, quiescence. In explanation I will say that bacteria may invade large areas of tissue and yet no rise of temperature may take place. It is when the forces of Nature attack the intruders, that increased combustion of cells occur with the generation of heat. Should the body fail to put up this fight and finally subdue the organisms, there is nothing to hope for. How necessary it is, therefore, that every precaution be taken in the event of fever to assist the forces of Nature. To do less than this, adds reinforcements to the bacilli and compels your weakened body to fight the whole "gang" alone.

The heart is the motor or engine that pumps the blood through the tissues, and the number of its beats determine the pulse rate. It is a most faithful organ, doing its work efficiently and uncomplainingly. Like the gasoline motor of the automobile, it accomplishes the largest amount of work with the greatest ease by continuous rapid action rather than

by running the risk of "stalling" through forcible explosions. The lesson this teaches us is to lighten the burden as much as possible, carefully choosing the road and avoiding the steep and dangerous hills.

The constitutional symptom of sweating so often referred to is not the well-known normal function of the skin exercised in carrying off waste products. It refers entirely to the drenching perspiration that occurs usually at night. The best authorities interpret this symptom as evidence of partial exhaustion of the defensive forces and a sign of distress, signalling for an extraordinary effort on the part of Nature to continue the battle. It is comforting to know that rest, fresh air, and proper food will speedily check the necessity for this urgent call for help.

The indigestion of pulmonary tuberculosis is a sympton that calls for the exhibition of the greatest courage and the use of common sense. There are few cases, indeed, where indigestion in the form of stomach and intestinal disorders does not appear at more or less frequent intervals during the course of treatment. The only rational and satisfactory explanation to my mind of this distressing phenomenon is one that has resulted from a careful study and observation of a large number of cases of pulmonary tuberculosis. It is as follows: Nature's power of resistance toward disease germs can be summed up in two words, i. e., encapsulation and digestion. Where the former method of dealing with foreign bodies in the tissue is not feasible or impossible, an attempt at digestion must be made. Tubercle bacilli are difficult to digest, and when present in the lung tissue in large numbers soon exhaust the digestive capacity of the local cells. The glands of the alimentary tract must furnish the reinforcements and the consequent loss or absence of a normal quantity of digestive ferments from the stomach and intestines determines the nature and degree of the disturbance. Ordinarily the trouble is of brief duration and the lessening of the demand for ferments in the chest is followed by a return of appetite and ability to digest the food that is eaten. One of the most common errors for a patient to make at this time is to place the blame upon the food that is served to him. It is not the fault of the cook, but the incapacity of the stomach and intestines to digest. An understanding of this observation cannot but suggest to you the advisability of exercising patience, courage and hopefulness. It has been found exceedingly beneficial in the treatment of severe attacks of this form of indigestion to restrict the diet according to the advice of the attending physician and for the patient to "take his medicine like a man."

Nervousness and worry are not ordinarily true symptoms of tuberculosis. When present before the onset of the disease, they usually persist afterward with their intensity slightly exaggerated. The foolish attempt on the part of many tuberculous individuals, especially those taking home treatment, to hide the true nature of their illness from their friends, is a prolific cause of an unstable condition of the mind and nervous system. It is truly pitiable to observe the punishment that is many times inflicted upon the individual through this sense of false pride. To acknowledge the condition, observe every sanitary precaution, and proceed to demonstrate the curability of the affliction, removes a big burden from the conscience and is evidence of a most sterling quality of manhood and womanhood. Seek to control every thought and act, that you may bless yourself with the comfort of tranquil nerves and peace of mind. By so doing you will drive away two monstrous evils that haunt and destroy. I only mention to condemn in the strongest possible terms the acts and remarks of thoughtless individuals who seem to take especial delight in irritating those who are of a nervous temperament and sick. No punishment is too severe, for the harm that is done can never be retrieved. To be disloyal to yourself and to the institution, by allowing the guilty party to escape is treason.

Disturbed sleep is not complained of very often by patients who are enjoying the blessings of Nature—taking the cure. Only occasionally will the noisy respiration of some associate annoy the light sleeper, and that seldom for very long. The calm and satisfying influence of knowing that you can win should promote the most natural quiet and repose. Prepare for a comfortable night and you will usually have it.

In conclusion, it is well to call your attention to the fact that this brief summary does not begin to cover the magnitude of the subject. If, however, some patients are able to glean from it new ideas, the carrying out of which will aid you in bringing about a more speedy return to health and strength, the effort shall not have been in vain.

THE WHEREYAMIAT OF LUNGARIYAM*

BY ALFRED L. DONALDSON.

I.

Wake! For the Sun of Science puts to flight
The Star-bacilli from the Field of Night,
And driving them from cloistered Browsing, strikes
Pulmonic Turrets with Fresh Air and Light.

II.

Before the phantom of Dark morning died,
Methought a voice within my conscience cried,
"When all the Rest are in their chairs without,
Why nods this drowsy Sitter-out inside?"

III.

And, as the Wind blew, those who stood before
The Sun Porch shouted: "Open Quick the door!
"We lose sweet, sedentary moments here
"And, once departed, they return no more."

VIII.

Whether at Saranac or Bloomingdale,
Whether the milk be sweet or slightly stale,
The price of eggs keeps rising day by day.
Oh! if we could but take the Cure by mail!

XVII.

Think, in this Outdoor Sanitarium
Whose Portals open wide to those who come,
How Sitter after Sitter on one Chair
Sits out his destined hours—and then goes "hum."

XXVII.

Myself for bronchial trouble did frequent
My Doctor friend, and heard great argument
About it and about: until at last
Up to the Adirondacks I was sent.

XXVIII.

And then the seed of wisdom did I lay,
Taking the Cure by Night as well as Day;
But this was all the Harvest that I reaped—
I came for Weeks, for Years I have to stay.

XLIV.

Why, if a Soul can get his Coat inside,
And for a dime with Jamshyd Hutchyn's ride,
Were't not a Shame—were't not a Shame for him
Upon the Porch with Cousins to abide?

XLV.

This is a Tent where takes his one day's rest
A Sitter to the realm of Health addresst;
The Sitter vacates and the tousley Fred
Smiles, and prepares it for another guest.

LXIV.

Strange, is it not, that of the myriads who
Before us pass'd, as Cures, these Portals through,
Each one returns to tell us of the Road
That leads them back to Saranac anew.

LXXII.

And that Perverted Bowl they call the Sky,
Whereunder, coonskin, coo'd, we live and sigh,
Lift not your hands to it for help, for It
Sends Rain when we want Snow—I wonder why?

XCIX.

Ah friend! have you not felt the wild desire
To call your mouth-thermometer a liar?
Would we could shatter it to bits—and then
Remould it so it never could go higher.

XII.

A book of Hygienics on the Cow,
A jug of milk, an uncooked egg—and Thou
Beside me coughing in the Wilderness—
Oh! Wilderness were Paradise now!

*Reprinted by request from the JOURNAL OF THE OUTDOOR LIFE, November, 1905. The canto numbers refer to the Rubaiyat of Omar Kyam. The local references are to the Adirondack Cottage Sanitarium at Saranac Lake.

NATURE STUDY FOR TUBERCULOUS CHILDREN

BY S. LOUISE PATTESON, WADHEIM, SOUTH EUCLID, OHIO.

I have often wondered why tuberculosis experts haven't thought of nature study and the creation of a live interest generally in outdoor things, as a means to divest the patient's mind from his dismal self and the destructive thought of his disease, to a subject that is pleasant and full of constructive possibilities.

CHRISTINA (ON THE RIGHT), WHO LOVES TO WATCH THE BIRDS.

This is being tried at the tuberculosis camp for children in Cleveland. The result is that every one of the patients is watching the birds near the tents. Some are keeping accounts of their observations in little notebooks furnished for the purpose, and many of these entries are indeed touching. Witness the following:

1.—Evidently of a junco, by Earl, a ten-year old:

"Thursday, April 13—Its wing was kind of white, its tail had white, its head was kind of blue. It was on the ground. It was as big as a sparrow. Its front was kind of white. I saw it while I was in bed."

2.—Evidently of a bluebird, by Louis:

"April 11—Blue back, red breast. It was on a tree."

3.—Evidently of a scarlet tanager, by William:

"April 10—Black cap, black wings, black tail, red back, red breast."

4.—By Angelina:

"April 12—Early in the morning when we were all in bed I heard a bird singing. It sounded as if it was near to me. I looked up and saw it and it had a red breast and brown back. I think it was a robin."

In the early spring some birdhouses were placed in trees so the children could watch operations from their tents. Again it was truly diverting and encouraging to see how these children caught the very spirit of bird life as they watched it day by day. Following are some extracts from the notebook of Christina:

"First I saw the birds come to the little houses looking all around. After they went away they came back with twigs and straw and went inside. Some twigs were long, and after they tried and tried to get in, they just dropped them. One morning I was sitting up in bed. I heard some singing. I looked up in the tree and there was two little birds singing and chattering. The bird lady said they were wrens. They flew to my little porch, then on the roof of their little house. One went in and then came out quick, then both went in and came out. They flew away and in a little while came back with straw, and

A VISIT TO THE BIRD TABLE BY A CHICKADEE AND A NUTHATCH.

all the day they were busy that way. One day a bird came with some food and went in the house. I listened and I heard 'ch ch ch ch ch.' I think it was the little ones asking for food. After that every time they went in with food I heard them calling that way. One day the cat was in the sunshine in my flower bed, and a bird went in with some food, and the little birds made that noise again. The cat listened. That night he got up there, but the children saw the cat and we all ran to chase him and he didn't get the birds. But he broke the little porch off the bird house, and after that the birds had a hard time to get in. They nailed some tin on the tree so the cat couldn't climb up any more. One morning the little birds were big enough to fly and the other birds were singing so loud I could not sleep. But I was lucky, for that was the morning when the little birds were going away. I sat up in bed and watched them. First they flew down under the tree and then hopped all around. They came to my flower bed and the other birds brought some worms and some bugs-like. One flew to my tent, and you ought to see those little birds right after her. Then the bird flew across the fence and the little birds crawled under the fence to her, and I didn't see them any more. But this is only the first family. They came back and took all the twigs out and dropped them to the ground and carried in some more. All at once came a sparrow. He tried to get in the hole. I saw when the wrens were fighting with the sparrows. Then the sparrows went down by the bluebirds' house. No bluebirds had come so they had the house. But do you know what those little wrens did? They brought twigs and put them in front of the hole inside and left just a little tiny opening so the sparrows couldn't go in any more."

When cool weather came on, the boys, with the help of one adult, erected a bird table which has attracted to the camp the Chickadees, Nuthatches, Downys and Hairy Woodpeckers, Bluejays, Cardinals and Cedar Waxwings. All through the winter it has been supplied with peanuts, suet and bread scraps, and all this caring for the birds has been

WHEN THE "BUTTERFLY LADY" VISITS THE CAMP.

done by the children with the greatest eagerness.

This work was begun by two volunteers and is now assiduously fostered by the head nurse and her assistants. And the nurses say that while formerly they had to drive the children outdoors, that now they want to be out all the time.

When the "bird lady" visits the camp, she reads all the descriptions in the notebooks and tells each child as nearly as she can the names of the birds he has described. Later on, when the "butterfly lady" comes, the children show her the cocoons they have found since her last visit. Then they crowd around her eagerly, hungrily, and listen to her story of the wonders of insect life.

The nurses report that since outdoor interests have been injected into their lives, the children are often heard talking these things over, comparing notes and finds, and planning how they will tell other children about birds and butterflies when they go back home. Many of these little ones will go home not only cured in body, but with a fund of outdoor interests and knowledge which will brighten all their future years.

WHEN COLD WEATHER CAME, THE BOYS ERECTED A BIRD-TABLE.

KEEP IT UP.

If a first you don't succeed—
Keep it up.
Is a lesson we all need—
Keep it up.
'Tis a maxim you should heed
When you have to slacken speed,
And a tame existence lead—
Keep it up.

If you've started on the Cure,
Keep it up.
Tho its pastimes don't allure,
Keep it up.
Swallow quarts of ozone pure,
Never mind the temperature,
'Twill be worth the effort sure,
Keep it up.

If at once you don't grow fat,
Keep it up.
Don't collapse your courage flat—
Keep it up.
In the headlong race for that
Dazzling prize you're aiming at,
Tho you're just an also sat,
Keep it up.

If you've nothing much to do,
Keep it up.
All are actors here it's true,
Keep it up.
There's been meted out to you
Just a somewhat-lost-to-view,
Waiting part and here's your cure,
Keep it up.

J. McC.

FRIEDMANN AND THE SOCIETY OF GERMAN SANATORIUM PHYSICIANS

In spite of the repeated reports from various sources of physicians who have carefully tested the Friedmann serum, the press agents of certain American exploiters of this so-called "cure" for tuberculosis seem to be busy as ever in their efforts to secure free publicity and advertising for Dr. Friedmann. Their efforts, as exhibited in a recent attempt to give the impression to American readers that the Society of German Sanatorium Physicians have almost unanimously endorsed the remedy, and Dr. Friedmann personally, are interestingly described and completely exposed in the following letter from Dr. S. Adolphus Knopf, of New York City. The JOURNAL OF THE OUTDOOR LIFE and the physicians of the country in general are indebted to Dr. Knopf for the time and attention which he has given to this important matter.—THE EDITOR.

Dr. Knopf's Letter.

TO THE EDITOR:

A sensational notice appeared at the beginning of last month in some of the leading English and German-American newspapers of New York, in which it was stated that on the occasion of the annual meeting of the Association of German Sanatorium Physicians, in Berlin, on February 28, one hundred and twenty of these physicians had carefully investigated the results of Friedmann's work. It was reported that 40,000 cases had been treated with Friedmann's serum and that the successes had been simply phenomenal. It was furthermore stated that Dr. Friedrich Franz Friedmann had been the guest of honor at a banquet given by the sanatorium physicians, and that he had been effusively thanked by Privy-Councillor Professor Dr. Pannwitz for his work, in the name of the sanatorium physicians present. Finally, it was said in the newspaper report that Dr. Friedmann had made the statement to an American press representative that Professor Ehrlich had expressed the opinion that the Friedmann serum was absolutely harmless.

In a communication received by the undersigned, bearing the signatures of the President, Dr. O. Pischinger; the Vice-President, Dr. J. Ritter, and the Secretary, Dr. Schellenberg, of the Association of Sanatorium Physicians of Germany, Austria and Switzerland, he was requested to enlighten the American medical profession concerning the incident connected with their visit to the Friedmann Institute in Berlin, and to give the facts the widest possible publicity, at least among medical men.

First of all, the officers of the association expressed their astonishment that the visit of the sanatorium physicians to the Friedmann Institute should have been used as a means of advertising Friedmann and his remedy abroad. Because of the reports of cures which constantly crept into the German medical and lay press and the demands for the remedy from many sanatorium patients, it was natural that the sanatorium physicians, while visiting Berlin, should wish to see for themselves what was going on in the Friedmann Institute. Thus they asked Friedmann to show them his cases and give them a talk on the indications for his remedy. About 60 of the 125 members of the association visited the Friedmann Institute on the 26th and 27th of February, 1914. They distinctly stated that their visit was in no way to be considered a pilgrimage to pay homage to Friedmann for his discovery, but rather an investigation to find out just how much truth there was in his claims. Many had already tried the remedy and had been disappointed; others were prejudiced, and it is for this reason that they wanted to examine critically into Friedmann's claims. *It is absolutely untrue that a banquet was given to Friedmann.* After the conclusion of the visit there was a confidential conference, without Dr. Friedmann, at which the members concluded to discuss the theme again next Fall and in the meantime collect as much material as possible.

That the undersigned may not be accused of prejudice or misinterpretation, I wish to quote in German the most essential statements which were made as the result of the visit of the association to the Friedmann Institute:

"Wir waren uns darüber einig, dass die uns von Friedmann gezeigten Fälle klinisch recht schlecht beobachtet waren und im Allgemeinen keineswegs als "Erfolge" angesehen werden konnten. Wir haben uns gewundert, dass uns keine ordnungsmässig geführte Kurve gezeigt

wurde. Die Roentgenplatten, die man uns zum Beweis zeigte, bewiesen tatsächlich garnichts. Wir geben zu, dass einzelne Fälle allerdings einen gewissen Eindruck auf uns gemacht haben, *wobei wir uns aber auch darüber klar waren, dass solche Fälle auch ohne jede Behandlung und bei jeder Behandlung vorkommen können,* und dass die Zahl dieser Fälle verhältnissmässig *viel* zu klein war, um ein günstiges Urteil über das Mittel abgeben zu können."

("We were of the unanimous opinion that the cases shown by Friedmann had been clinically very badly observed, and as a whole could not be considered as successes or cures. We were astonished that no carefully recorded temperature and weight curves were shown. The x-ray plates which were shown to us as evidence of cures did not actually prove anything whatsoever. We will admit that some cases indeed made an impression upon us, but here we must also remember that such cases occur without any treatment or with any kind of treatment, and that the number of them were altogether too few to permit a favorable judgment of the value of the remedy.")

I have since received a letter from Geheimrat Prof. Dr. Pannwitz, in which he substantiates what has been said in the official communication from Drs. Pischinger, Ritter and Schellenberg. He particularly expresses his indignation at the use of his name in connection with a banquet which never took place. He declared the whole thing to be a newspaper invention.

Prof. Dr. L. Brauer, Director of the Eppendorfer Krankenhaus of Hamburg, who had also heard the American version of the sanatorium physicians' visit to the Friedmann Institute in Berlin, wrote me a letter full of indignation and said at the same time that "he had tried Friedmann's remedy at the Eppendorfer Krankenhaus and the results had been unfavorable." He has reported these unfavorable results recently at the Balneological Congress and the Hamburger Aerzte Verein, and intends to publish more on the subject at an early date. He has since sent me the advance sheets of his forthcoming communication regarding Friedmann, wherein he says: "The pulmonary cases treated in the Eppendorfer and Salemburg hospitals with Friedmann's method did not improve, but some of them, without a shadow of doubt, were rendered worse by the treatment. Five cases of bone and joint tuberculosis in children treated with the Friedmann serum by Dr. Trepler in the Salemburg institution were not influenced at all by the treatment, and in one case, although the movement of the afflicted joint increased, the general condition of the lesions was rendered worse."

In paying a gratifying tribute to the earnest and unbiased work done with Friedmann's serum by American investigators, which likewise gave unfavorable results, Professor Brauer advised me, in the interest of the German medical profession, and especially in the interest of the unfortunate patients who naturally were inclined to accept such advertised endorsement as genuine, that it would be most desirable that the present status of the Friedmann remedy in Germany be made clear to the American medical profession and the laity.

I am sure our German colleagues in general and particularly the German sanatorium physicians, Professors Pannwitz and Brauer, will be greatly indebted to you, Mr. Editor, if you will give the foregoing a space in your esteemed journal and thus make clear the real status of Friedmann's remedy in Germany.

Respectfully yours,

S. A. KNOPF, M. D.

WHAT FRESH AIR, GOOD FOOD AND PLENTY OF SLEEP DID FOR ONE BABY*

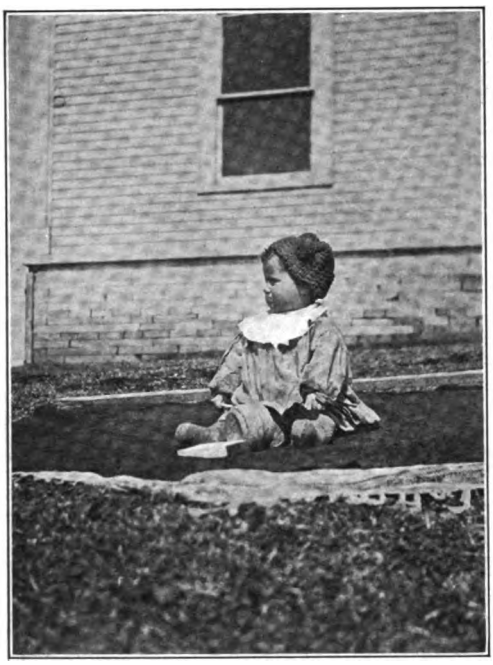
BY MRS. ISABEL WEBBER, BOBCAYGEON, ONTARIO.

Herbert Randall Webber entered upon life with only a limited amount of energy and strength. At birth he weighed 5 lbs. 14 oz., but in every way he was fully developed. During his first year it was his good fortune to live in the North of Newfoundland, on the shore of Notre Dame Bay, where the climate is stormy and intensely cold during the winter.

A NEWFOUNDLAND BABY—HERBERT RANDALL WEBBER AT EIGHT MONTHS.

On every suitable day Herbert's cot was placed on the front doorstep for his morning nap. On damp and windy days you might see him sleeping at the wide open windows, or, failing this (in severe weather), the room he occupied was supplied continually with fresh air by the window being opened wide for a few minutes and then closed at regular intervals. Herbert had no place in the kitchen. Often one might see him in a small sleigh, being pulled over the icy river, six miles wide. That he enjoyed this treatment, his rosy face and smiles proved. He always kept warm in his outdoor clothes and rarely needed a hot water bottle.

*Mrs. Webber, the mother of the baby described in this article, is the wife of a Methodist minister. She is a trained nurse, and previous to her marriage contributed much to the success of the anti-tuberculosis movement in St. John, N. B.—THE EDITOR.



AT NINE MONTHS.

When three months old Herbert's natural supply of food failed and he was compelled to obtain nourishment from foreign sources. There being no fresh milk of any kind available, a food was prepared for him composed of oatmeal gruel, condensed milk, cod liver oil, and raw beaten eggs. (Lime water also was unobtainable.) The cod liver oil, 6-15 drops per meal, was given to supply fat. He consumed one raw egg per day, two teaspoonfuls being added to his bottle. This supplied the necessary proteid. After the addition of raw egg to his food, Herbert acquired energy and snap, he grew rapidly and soon became a strong, hearty, happy boy. The eggs produced no ill effects whatever and were easily digested. Nothing jarred him. Even when whooping cough attacked him he did not lose weight. For six weeks he took extra sleep in a moistened and tempered atmosphere and recovered without any cold, bronchitis or other complication. At the end of six weeks the cough entirely left him. He was free from colds all the next winter.

At six months he began to take a poached egg each day for dinner and one-half a raw egg in his bottle during each twenty-four hours. His food was now varied with barley water, thin corn-starch, beef-tea, baked apple pulp, cream of wheat and strained prune pulp. From birth until he was eleven months old Herbert never lost weight, and at eight months he weighed 21 lbs.

This variety of food was included in the usual quantities allowed to babies; but while most babies require seven meals during each twenty-four hours, Herbert only needed five meals of average quantity from birth until he was one year old. Ability to sleep is a strong point with Herbert. One meal at four a. m. or 5 a. m., sufficed during the night. At eight months he dispensed with this too, and slept twelve consecutive hours at night and from one to three or four hours by day. This habit he still adheres to, at seventeen months.

During these seventeen months Herbert had

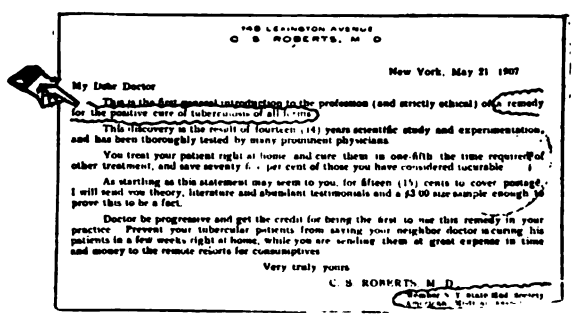
AT ONE YEAR.

but one illness, possibly occasioned by too sudden a change to cow's milk while teething.

At the present time he is thought to be a big, strong boy. He has a fair amount of teeth and is strong and straight on his feet.

OXIDAZE—OLEOZONE—HYDROCINE*

In 1907, a "consumption cure" was put on the market under the name, Hydrocine. Hydrocine was called—at first—a "hyper-oxidized hydro-carbon;" later it was referred to as an "oxidized carbo-hydrate." It was analyzed by the Association's chemists, who reported that they found that "each 29.5 grain Hydrocine tablet contains 28 grains of cane sugar and small quantities of volatile oils and a trace of pancreatin." This preparation seems to have originated with a C. E. Getsinger who organized what was known as the Medical Food Company. The commercial possibilities in selling an odoriferous sugar mixture as a "consumption cure" apparently appealed to one



C. S. ROBERTS, M. D.

New York, May 21 1907

My Dear Doctor

This is the first general introduction to the profession (and strictly ethical) of a remedy for the positive cure of tuberculosis of all forms.

This discovery is the result of fourteen (14) years scientific study and experimentation, and has been thoroughly tested by many prominent physicians

You treat your patient right at home and cure them in one-fifth the time required of other treatment, and save seventy five per cent of those you have considered incurable

As startling as this statement may seem to you, for fifteen (15) cents to cover postage, I will send you theory, literature and abundant testimonials and a $3.00 size sample enough to prove this to be a fact.

Doctor be progressive and get the credit for being the first to use this remedy in your practice Prevent your tubercular patients from saving your neighbor doctor in curing his patients in a few weeks right at home, while you are sending them at great expense in time and money to the remote resorts for consumptives

Very truly yours

C. S. ROBERTS, M. D.

Photographic reproduction (reduced) of a post-card sent out by C. S. Roberts at the time he first began exploiting Hydrocine. Notice the claim that his nostrum is a "positive cure of tuberculosis of all forms." Note, too, the way in which Roberts made capital out of his membership in the Medical Society of the State of New York and in the American Medical Association. Roberts joined the American Medical Association in December, 1906, just before he went into the "consumption cure" business. In September, 1907, the county society repudiated him and his membership in the State and National organizations was thus automatically terminated.

Charles S. Roberts, a physician of Syracuse, N. Y., who, with the help of Charles H. Goddard and others, incorporated the Hydrocine Company for the purpose of exploiting Getsinger's "treatment." Goddard, it may be mentioned in passing, was the man who organized that cooperative "patent medicine" concern known as the A. D. S.—American Druggists Syndicate.

Getsinger and Roberts later seemed to have had a disagreement and Getsinger marketed his own product under the name of Oxydase. Roberts changed the name of Hydrocine to Oleozone and apparently had the stuff made by the A. D. S.—or at least it bore the same serial number as that given the A. D. S. products. Coincident with these changes in the name of the "hyper-oxidized hydro-carbon," another concern came into existence—the Cowles Institute, said to be operated by one H. L. Cowles. This also dispensed "oxygenated products" for the cure of consumption. A little later Cowles seems to have changed the name of his concern to the Hemavitæ Company and to have rechristened his product Hemavitæ.

The latest change (March, 1911) in the name of Getsinger's product is Oxidaze, put out by the American Oxidaze Company.

The matter which follows is a reprint (slightly modified) of the articles that have appeared in *The Journal of the American Medical Association,* tracing the vicissitudes through which this odoriferous sugar mixture has passed in its various stages of evolution as a "consumption cure."

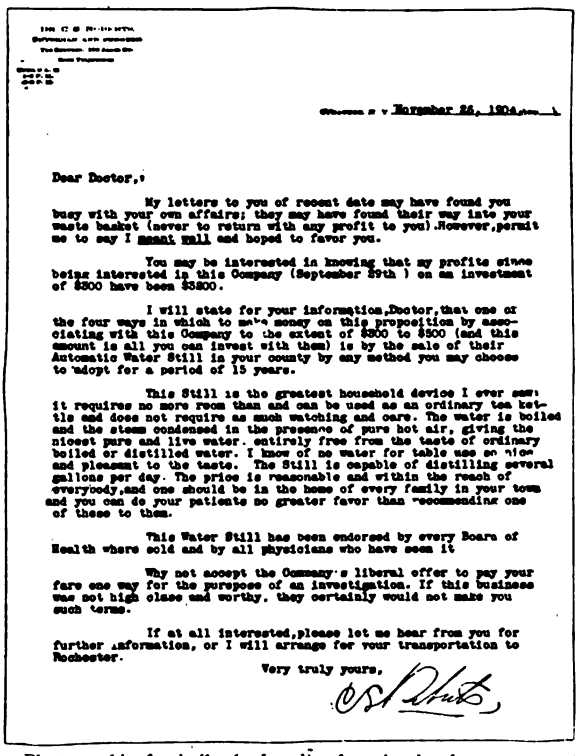
HYDROCINE.

We have had occasion to comment on the diabolical cruelty exhibited by cancer fakers in deluding their victims with false hopes and by inducing them to delay such treatment as might be effective until too late. Next to cancer, tuberculosis offers the most promising field for such vampires, for it is a disease in which the patient is always hopeful and always ready to say that he is better; just such

*This was written in August, 1907. Reprinted from *Nostrums and Quackery* (A. M. A.), pp. 147 sq.

a condition as makes him an easy victim for those who are without principle and ready to prey on the hope which springs eternal in the human breast.

of his ethical standing. As soon as the Onondaga County Medical Society discovered the business Roberts had gone into he was asked to resign, but this he refused to do. Hence it



November 26, 1904.

Dear Doctor,

My letters to you of recent date may have found you busy with your own affairs; they may have found their way into your waste basket (never to return with any profit to you). However, permit me to say I meant well and hoped to favor you.

You may be interested in knowing that my profits since being interested in this Company (September 29th) on an investment of $300 have been $3800.

I will state for your information, Doctor, that one of the four ways in which to make money on this proposition by associating with this Company to the extent of $300 to $800 (and this amount is all you can invest with them) is by the sale of their Automatic Water Still in your county by any method you may choose to adopt for a period of 15 years.

This Still is the greatest household device I ever saw: it requires no more room than and can be used as an ordinary tea kettle and does not require as much watching and care. The water is boiled and the steam condensed in the presence of pure hot air, giving the nicest pure and live water, entirely free from the taste of ordinary boiled or distilled water. I know of no water for table use so nice and pleasant to the taste. The Still is capable of distilling several gallons per day. The price is reasonable and within the reach of everybody, and one should be in the home of every family in your town and you can do your patients no greater favor than recommending one of these to them.

This Water Still has been endorsed by every Board of Health where sold and by all physicians who have seen it

Why not accept the Company's liberal offer to pay your fare one way for the purposes of an investigation. If this business was not high class and worthy, they certainly would not make you such terms.

If at all interested, please let me hear from you for further information, or I will arrange for your transportation to Rochester.

Very truly yours,

Photographic facsimile (reduced) of a circular letter sent out by Roberts at the time that he was trying to get physicians to invest in the "Automatic Water Still." The physician to whom this letter was addressed said: "This is the third letter I have received from Dr. Roberts in the past few weeks, none of which I have answered."

During the past three months physicians all over the country have been receiving postal cards announcing the discovery of a new and wonderful remedy for consumption. The card is signed, "C. S. Roberts, M.D., Member N. Y. State Medical Society and American Medical Association." It is to be regretted that what Roberts says regarding his membership is true. Until within the last few months Roberts lived at Syracuse, N. Y., and is a member of the Onondaga County Medical Society and consequently of the Medical Society of the State of New York. Last December he became a member of the American Medical Association. This was just before his removal to New York City, and he evidently obtained this membership because he was going into this wretched business and wanted to use his membership as apparent guarantee

became necessary for the society to go through the legal form of trial before expelling him from the society. We understand that his trial cannot come off until September, and that Roberts is fighting to retain his membership.*

According to the postal card, Roberts is just commencing to introduce to the medical profession "(on strictly ethical lines)"—this is put in parenthesis probably for emphasis—"a positive cure for tuberculosis in any form." "This discovery," he says, "is the result of fourteen years scientific study and experimentation," but so far as we have been able to learn, Roberts has not been noted as performing any remarkable cures of tuberculosis in Syracuse, nor was it known that he was using

* He was dropped at the September, 1907, meeting.

this wonderful remedy. The last paragraph of the postal card is supposed to be a clincher:

"Prevent your tubercular patients from saying your neighbor doctor is curing his patients in a few weeks right at home, while you are sending them at great expense in time and money to remote resorts for consumptives."

Judging from the circulars, Roberts seems to have gone to New York to help exploit a nostrum—Hydrocine—put out by the "Medical Food Co.," and evidently the postal card is the initial move in a scheme to exploit the medical profession.

Incidentally, it might be said that some two or three years ago Roberts was interested in a scheme to work the doctors by getting them to invest in a water still, and the circular letters he sent to physicians at that time sound very similar to the circulars he is now sending out puffing this specific for consumption. In one of the "still" leters he states that he made $3,200 in less than two months on an investment of $300. Evidently something must have happened to the "still" business, for such a man would hardly give up a business netting $2,900 in two months, even to exploit a remedy that is to relieve the human race of one of its most fatal diseases.

The recipient of the postal card above referred to is told that if he will send 15 cents in postage stamps he will be furnished with the "theory, literature and abundant testimonials and a $3 size sample to prove what we say." This part of the agreement is lived up to. The theory is furnished, plenty of literature, including testimonials, and also a box of the tablets. The theory ought to take with an ignorant layman, and the literature certainly is promising and hopeful enough to convince the most desperate individual that he could be cured.

The wonderful remedy is known as Hydocine—hyper-oxidized hydro-carbon. The circular tells us that "the physician is unquestionably entitled to a full, frank and candid statement of the composition, nature and character of any and every medicinal preparation he is asked to prescribe." This sounds excellent, and then follows the formula:

Formula.

Hyper-oxidized hydro-carbon (vegetable)	28 gr.
Pure rock sugar	8 gr.
Powdered pancreatin	1/20 gr.

The oxids are liberated in the sotmach and thrown into the circulation.

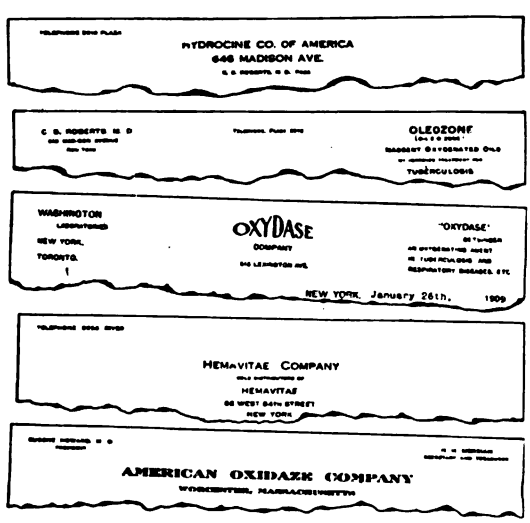
It is barely possible that there is somebody on this mundane sphere that can tell what "hyper-oxidized hydro-carbon (vegetable)" is. Most of us have a knowledge of pure rock sugar and powdered pancreatin, but when we come to the other ingredient, we fear the majority of us would have to give it up.

However we find this in the printed circular:

The hydro-carbon is extracted from oils of cinnamon, coniin, peppermint, spruce, myrtle, chekan, marrubium, myrrh, turpentine and thymol, is then condensed, and positively all toxic properties are eliminated. The residue is hyper-oxidized, predigested by pancreatin, mixed with a small quantity of powdered rock sugar and pressed into 30 grain tablets.

There we have it. And when we have it, what have we?

The literature is of the usual quackish order, including testimonials, and also a box of the tablets. The theory ought to take with an ignorant layman, and the literature certainly is promising and hopeful enough to



Photographic reproduction (reduced) of the letter-heads of some of the various concerns that have found it profitable to exploit an odoriferous sugar mixture as a "cure" for consumption.

der, the optimistic kind that will make the physician who does not stop to think feel that it is something worth trying at least.

(*To be concluded in June.*)

Journal of the Outdoor Life

Official Organ of The National Association for the Study and Prevention of Tuberculosis; The New Haven County Anti-Tuberculosis Association.

PUBLISHED MONTHLY BY

JOURNAL OF THE OUTDOOR LIFE PUBLISHING COMPANY

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JAMES ALEXANDER MILLER, M.D., President — LIVINGSTON FARRAND, M.D., Vice-President — PHILIP P. JACOBS, Ph.D., Secretary-Treasurer and Managing Editor

The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

REPORTS

That the numerous and voluminous reports of hospitals, anti-tuberculosis societies and other organizations, which are issued periodically, should be readable, needs no argument, provided they are written and published to be read. If they are intended only for the eyes of small circles of interested and enthusiastic supporters of the particular activities reported, then page after page of solid, small-typed printed matter, followed by dull, complicated, unreadable tables of statistics may answer.

If, however, the public in general is to read and become interested, records must, let it be repeated, be at least fairly entertaining. The average report seldom gives other than the driest, most mechanical details of past achievements and of future plans. On rare occasions one discovers a report which contains an item of human interest, and then he is almost led to believe that it crept in through error or an oversight. And yet where can be found more sharply defined and contrasted than in a hospital or in connection with the work of the visiting nurse, the human lights and shadows which make up the comedies and tragedies of life?

An annual report generally consists of facts set forth in a dignified manner and fittingly bound by a cover that prominently gives the name of the particular organization which issues it. An annual report should be this, and not a short story. But an institution or society is of chiefest interest because of the work it is doing for human beings, and because of those very human beings themselves, interest is not incompatible with true dignity, even in reports.

It is interesting to learn the cost and capacity of the hospital's new soup kettle, but more decidedly interesting is the story of little Sally whose smiles permeated the whole institution like a myriad of sunbeams and who was restored after a few months to health and to a joyous mother. Certainly, the average length of stay of patients, and the low cost of maintenance should be made known. These facts are essential to a comprehensive report. On the other hand, related experience of visiting nurses and of patients in the home or hospital give the human touch which is necessary to a live report. Any mere suggestion of real life, be it ever so brief, relieves the monotony of pages of dry detail.

Half-tone reproductions cost money. They also attract and hold attention. Large type means the curtailing of

a report because funds are limited. But large type means easy reading and a consequent saving of the eyes. A brief report that it is read is far preferable to a longer one that is carefully filed away on the shelf to be looked over at some later date when time will permit the perusing of such a long document. That time is never. Frequent captions break up the printed page into easily read sections and inform the reader at a glance of what is coming so that here and there he may skip a paragraph which does not give promise of special interest.

Brevity is the soul, and should be the substance of reports. There are many reports, the proud authors of which would themselves not have the patience to read from cover to cover, now that they are in print.

Reports are reports, no doubt. Quite as truthfully also may it be stated that people are human. And human beings will not carefully read literature of the ordinary report variety which is as dry as the Sahara Desert and without so much as a mirage, let alone a genuine oasis, of interest throughout its dreary length to encourage one to pursue to the end.

TUBERCULIN VERSUS VIVISECTION

The chief stock in trade of that seemingly well meaning but greatly deluded group of people known popularly as Anti-Vivisectionists is their ability to provoke a sentimental hysteria in a certain portion of the general public.

A recent example of their publicity methods is exhibited in a pamphlet which attacks Dr. L. Emmett Holt, the well-known authority on children's diseases, because it is alleged that he practiced "human vivisection" in the use of tuberculin tests on a considerable number of babies. The absurdity of such a charge must be apparent to every reader of the Journal of the Outdoor Life, and Dr. Holt's conservative reply to the pamphlet issued by the vivisectionists would hardly be needed for readers so well versed in the technique of the preparation and administration of tuberculin as those who read these pages.

It is worthy of note, however, that the attempt of the vivisectionists to use Dr. Holt as a means for carrying on their propaganda is similar in many details to recent attempts of another organization which employs the same methods, and of numerous cults of a different character, both religious and sentimental. For example, the vivisectionists stated in their pamphlet: "More than half the cases *reacted* (which means they were infected with tuberculosis in a modified form)," and again, "Would *you* like to have *your* baby inoculated with consumption germs?"

To anyone who is familiar with the preparation and use of tuberculin, and who recalls that it is a product obtained from filtered cultures or from the bodies of dead tubercle bacilli, and that it contains absolutely no germs of any kind, such statements are absurd in the extreme. Furthermore, anyone acquainted with a typical reaction from the skin or eye test for tuberculosis knows that slight inconvenience is caused by it. He also knows that a reaction is caused not by the activity of any germs that have been inoculated into the human body, but by the presence of tuberculosis already existing somewhere in the body.

It makes little difference, therefore, whether statements such as those quoted above and many others are maliciously published with intent to deceive or are simply the results of ignorance. In either case the people who spread them are guilty of an attempt to check the movement which is doing more to reduce the death rate from a preventable disease than almost any other single movement of this character in the history of mankind.

THE WORKER'S CORNER

The aim of the Corner will be to answer as briefly and concisely as possible inquiries from anti-tuberculosis workers, such as secretaries of associations, visiting nurses, physicians in charge of sanatoria or dispensaries, teachers, ministers and others, relatin to the various phases of the anti-tuberculosis campaign. This department will not be for questions and answers only. It will be a common meeting-place for the discussion of common difficulties by all anti-tuberculosis workers, either through the medium of a brief signed note, a question, or a communication to the editor.

A Nurse For a Month

TO THE EDITOR:

We are a small group of people in a mill town. We have money enough to pay the salary of a nurse for a month. Is it worth while—can she do anything that will last in a month? M. T. Penn.

You certainly can. Get the best nurse you can find—one with experience, put her at work on your worst cases, give her the things she needs to work with, and at the end of the month—ask the Masons, the Elks, the Woman's Clubs, the Churches, and other organizations—don't forget the Unions—to contribute a definite amount to continue the work a while longer, and then when public sentiment is sufficiently aroused, ask your City Council to make an appropriation—but get your facts *first* so you can break down the old argument—"We don't need a nurse here."

School Lunches

TO THE EDITOR:

We have a great many children in our graded schools who are underfed—our town isn't large enough to make a "penny lunch" a success, yet many children need help. What can take the place of the lunch?

C. S. W., Mo.

In one Western town the school nurse gives one thousand quarts of milk per month to school children. Twice a day the children who need the extra diet, are given all the milk they can drink—they are not all poor children either. The money is contributed by the Local Association and interested people. The increased attendance and gain in weight has made the School Board take notice. As a result, an open air school is being added to the plans of a new building. Try this and see if it isn't better and infinitely less bother than the penny lunch. The New York Association for Improving the Conditions of the Poor, 105 East 22nd Street, New York City, may be able to offer some other suggestions along this line.

Equipping the Nurse

TO THE EDITOR:

Last year the Woman's Club was successful in getting our School Board to employ a school nurse. They have not been willing to give her the extra things she needs to work with—she has no money for diet, tooth brushes or any of the things she needs. What do you suggest? Our club has a little money.

K. W., Michigan.

Why not co-operate and help your nurse with the things she needs to work with, even if you have to raise more money? Your Board undoubtedly feels that they have done their share, and you must do yours. Particularly until they can see that the nurse is a necessity. If you lose your nurse now, it will be hard to put in another. You might have to furnish things for another year but let go of your money—you'll get more somewhere when that is gone.

Child Labor and Tuberculosis

The National Child Labor Committee is anxious to secure data with regard to investigations showing the relation between child labor and tuberculosis. Readers of the Journal may help by sending data to the office of the committee, 105 E. 22d Street, New York, attention of Mr. Hine.

A TUBERCULOSIS QUESTION BOX

Suitable questions will be answered on this page each month. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," JOURNAL OF THE OUTDOOR LIFE, 289 Fourth Avenue, New York City. Please write only on one side of paper. Questions received before the 10th of the month will be answered the following month.

TO THE EDITOR:

Dr. W. C. Minchin, of Dublin, Ireland, "late Medical Officer of the Kells Union Hospital and Fever Hospital," has recently (1912) published through the firm of Bailliere, Tindall & Cox, London, a book, entitled "The Treatment, Prevention and Cure of Tuberculosis and Lupus with Allyl Sulphide." The issues of December 3d and March 12th, 1913, of the "Medical Press and Circular," refer at length to this form of treatment, and the latter article gives illustrations which would go to show that marked results have been achieved by its use. It is claimed by Dr. Minchin that "the oil of allyl is very deadly to the Bacillus Tuberculosis in the human body," and that "it saturates the human tissues and blood-stream in a manner which cannot be excelled by any serum."

I would be pleased to receive an expres-

sion of your opinion concerning the merits of this treatment and the claims for recognition.

W. L. H., La.

The treatment by means of Allyl Sulphide of which you write has never been tried out in this country as far as we are aware, although the possible value of onions in one form or another has been sugested from time to time for many years.

Dr. Minchin is evidently an enthusiast and his book does not give one the impression of being very scientific. It would appear to be very unlikely that this form of treatment has the specific value which he claims. Certainly, he very far from proved his point and it is probable that a large series of cases did not bear out his contentions.

It would be very necessary to have such series very carefully checked up before any definite conclusions could be drawn. As far as we are aware this has never been done.

To the Editor:

1. In an arrested case of tuberculosis or in a case where the disease is not progressing, where does the yellow or green sputum come from?

2. What would you consider an arrested case of tuberculosis?

3. I have heard about a physician in California, and also seen an article by him which he claims inhalations of Canada balsam and needles of pines is a great help in the treatment. The treatment is not sold by him, but simuly recommended. Do you consider the smoke or fumes of a harmful nature? It is used in boiling water.

4. Has fresh air any direct effect on healing lung tissue or only on the blood.

5. I am a case of tuberculosis. It is about a year and a half since I first noticed that I had the disease, but about 15 years ago after an attack of mumps I spit lots of blood and yellow and green pus, but I have been working ever since, but have had pains in chest most of the time and pleurisy. Do you think I could have had the disease since and been working, or without the lungs being healed up. I have never been in bed; weight, normal; temperature, normal most of the time at present.

6. Does a fistula generally heal up when the lungs heal, or is operation advisable? Do they contain the tuberculosis baccilli?

J. B., Mont.

1. An arrested case of tuberculosis often has sputum from the diseased area which lasts for years. As a rule this gradually becomes less, but sometimes never disappears.

2. The classification giving a definition of an arrested case of tuberculosis is printed in the March, 1914, number of the Journal of the Outdoor Life, p. 88.

3. We do not believe that the inhalations of balsam and pine needles would have any more than a soothing effect. It certainly could not cure the lung condition.

4. Fresh air acts more on the body as a whole and not directly upon the lungs.

5. It is impossible to say whether you had tuberculosis or not. It is perfectly possible.

6. A fistula acts independently of the lungs. It may or may not heal with the operation. The discharge sometimes contains bacilli, but often not.

To the Editor:

1. Are the majority of physicians in favor of tuberculin?

2. What symptoms from tuberculin reaction would be apparent when temperature does not differ. Tuberculosis carries in its train so many ill feelings, appearing at unexpected times, that it is difficult to designate to the doctor those of tuberculin.

3. After inoculation, how long before reaction would be noticed, then of how long duration?

4. Does remaining quiet the two days after inoculation mean refraining from bodily exertion only, and must this "still life" be so after each inoculation during the whole series?

5. Are patients ever allowed to use tuberculin themselves, with a chart to go by?

6. In tuberculosis of the liver, would temperature rise? Is the same treatment suggested as in the lung trouble rest, outdoor living, but would not the diet have to be planned differently?

7. With the chest quite free of disease, why does blood spitting continue, generally mornings, though some days every expectoration brings up blood.

8. What authority would give the names of the best lung specialists in Canada?

A Subscriber, Montreal.

1. The majority of physicians who have used tuberculin believe in its value in proper cases.

2-3. These questions are difficult to answer without going into the subject exhaustively. You will find a discussion on tuberculin in the Journal of the Outdoor Life for March, 1912, and we intend to publish in the near future another authoritative article on this subject.

4. This varies with each individual case.

5. We believe that this occasionally is practiced with the approval of some physicians, but such self treatment is, in our opinion, unwise and may even be dangerous.

6. Tuberculosis of the liver is extremely rare and there is no special treatment for it. The condition is rarely diagnosed.

7. Blood spitting may occasionally occur from other conditions than disease in the chest, but if a person has once had tuberculosis and continues to expectorate blood, it

would rarely be the case that the chest was "quite free of disease."

8. Write to Dr. George D. Porter, Secretary of the Canadian Association for the Prevention of Tuberculosis, 162 Crescent Road, Toronto, Ontario.

TO THE EDITOR:

Please tell me, through your question box, what merit or lack of merit is possessed by "Pulmonol?"

"Interested Reader."

An investigation of Pulmonol is now being carried on, and the results of it will be given publicity in the near future. Meanwhile, we would caution you not to have anything to do with this so-called cure for tuberculosis.

TO THE EDITOR:

Have been a sufferer of tuberculosis for the past year and a half but have lost nothing in weight. On the contrary I have gained. Have been feeling well right along and have a good appetite, but can't bring my pulse or temperature down—pulse being 115 or so, and temperature about 100 degrees.

In January I came from Chicago down here to a sanatarium and I would like to know if you think it would be all right for me to leave here and spend the summer on a farm near Grand Rapids, Wis., providing I remain quiet, etc., up there. Grand Rapids, Wis., is a sandy, rolling country, and has lots of pine trees, but I do not think the altitude is very high. Does the altitude make much difference?

L. Mortenson, N. C.

It seems very likely that the change to a farm would do very well especially as you must by this time have learned how to take care of yourself.

It is important, however, that you should not go to where it would be too hot this summer.

The best thing that you could do would be to follow the advice of the sanitarium physician in these matters.

TO THE EDITOR:

Could you give me some information regarding the Friedman turtle serum treatment, whether it is used or not in this country. About a year ago the people were all excited about it at that time, and then it died out.

G. O., Liberty.

We are happy to be able to say that the Friedman treatment appears to have died a natural death. We are informed by physicians who gave it a fair and thorough trial that it has proven to be of no value.

TO THE EDITOR:

1. I am an advanced case of Pulmonary tuberculosis and would like to know where cod liver oil is used in what form it should be taken? Can you recommend any special kind?

2. Is there any especial benefit derived from the use of an electric belt? There is a company in Los Angeles which recommends the electric belt very highly for restoring lost vitality, strength, etc.

M. S. B., Cal.

1. Cod liver oil is helpful as food and also seems to have some particular action on the mucus membranes of the lungs and bronchial tubes. Any of the usual preparations are all right and one has no material advantage over another. It is the cod liver oil which these preparations contain which is helpful.

2. We do not know of any value to be derived from the use of an electric belt and the description of the advertisement for the one which you mention leads us to believe that it is a purely commercial enterprise.

TO THE EDITOR:

Will you kindly tell me in your next issue your opinion of the X-ray examination for the lungs? Does it show up the different types of involvement such as infiltration, consolidation or a cavity, and can you distinguish one condition from the other on a plate? To what extent is the X-ray being used now in pulmonary tuberculosis?

A Subscriber, Ky.

X-ray examinations of the lungs are frequently very valuable for diagnosis and also for watching the progress of any given case. The different types of disease you mention can usually be made out distinctly in the plates. There are some cases in which the physical signs are more definite than the X-ray findings. The X-ray is being used very extensively for examination of the lungs.

TO THE EDITOR:

1. Are weak lungs strengthened by the application of cold water to the chest?

2. Is this treatment much used in the best tuberculosis sanitoria?

3. Under what conditions would it be unsafe?

4. Is the effect of cold water more favorable if preceded by the application of hot water?

M. H., Ga.

1. The term "strengthening weak lungs" is a very indefinite and unfortunate one, though it is widely used. In suitable cases the use of cold douches or sprays about the neck, shoulders and chest or even the entire body is very helpful. Its beneficial action is ascribed to the tonic effect upon the circulation and nervous system, and to a less extent upon the deepening of respiratory movement and counter-irritation of the chest. It is very frequently advised in various forms, both in

sanatoria and elsewhere, but should be employed only after medical advice.

Some of the conditions in which such treatment is usually unwise are hemorrhage cases, those with active or acute disease, those with very poor nutrition or circulation, or those which do not react well after the treatment.

To the Editor:

1. When one cheek flushes in a tuberculous case, temperature and pulse being normal, can that be an arrested case or is it active as long as cheek flushes?

2. How much does the temperature vary from morning temperature to highest afternoon temperature in a healthy person?

3. Is 99.4 or 99.6 degrees always fever or is it normal in some persons? Would it be normal in a tuberculous case if that person had the same temperature (99.4 degrees) every day for more than a year with the exception of a very few days when temperature did not go over 98.8 degrees?

4. When in an overheated room only a few minutes or when exercising, the face and neck flushes to a deep red is that due to tuberculosis or has diet anything to do with it? Is there anything that can be done to stop that flushing of the face? (My face always flushed many years before I was told that I had tuberculosis.)

A Subscriber, Wisc.

1 and 4. Flushes of the cheek are nervous phenomena. They are common in other conditions besides tuberculosis and by themselves are no indication of activity of disease or otherwise.

2. From one to one and a half degrees.

3. Rectal temperature of 99.5 degrees is not beyond the range of normal.

To the Editor:

Where it is impracticable to boil anything that has been soiled with sputum from a consumptive, couldn't it be disinfected by taking a hot iron and pressing the soiled spot?

J. F. J.

Such procedure would not be surely effective. It would be better to clean such spots with soap and water and then with carbolic acid solution (1 x 100) and then hang the article in the sun for at least a day.

To the Editor:

1. Have you ever re-printed from the June, 1911, number certain articles on Rest or have you back numbers of that month on hand? I think it is worthy of re-printing as was Dr. Miner's article that you published so recently.

2. Why does he advise against reading in bed? My bed is out on the porch and I spend a good deal of my time in a half-reclining position on it; reading is my only amusement and I must pass the time away in some manner. Hope to see a reply in the May number.

Levi Stein.

1. These articles were all re-printed in different numbers of the Journal for May, August, September and October, 1912.

2. Dr. Minor's advice is probably based upon two facts: (1) That reading in bed is often injurious to the eyes from the improper angle of vision and (2) that such reading interferes with proper rest and relaxation.

To the Editor:

Can a person with T. B. bowels have a hemorrhage, and if so does blood come from rectum?

2. Can you tell average length of life of persons so afflicted?

G. N. H.

1. Yes but this is not a usual symptom. The blood in such cases usually comes from higher up in the bowels than the rectum. The usual cause of bleeding from the rectum is hemorrhoids or "piles."

2. Any statement of such an average would be guess-work and misleading. In general, it may be said that intestinal tuberculosis is very serious condition.

GLEANINGS FROM TUBERCULOSIS LITERATURE

Tuberculosis Number of Interstate Medical Journal

The March number of the "Interstate Medical Journal" (St. Louis, Mo.), is devoted entirely to the many phases of the tuberculosis question. Thirty-six original articles contributed by authorities in England, Ireland, France and this country are headed by an introduction from Sir William Osler, M.D., of Oxford, England.

As might be expected, a number of the contributions deal with tuberculosis and the child, including articles on open-air classes and schools, and the best methods of housing tuberculous children. John B. Hawes, 2d, M.D., Boston, has contributed an article on "Intrathoracic Tuberculosis in Infancy and Childhood, including Bronchial Gland Tuberculosis." "Tuberculosis and The Child" is the subject of an article by F. G. Crookshank, M.D., of London; Maria Mitchell Vinton, A.M., M.D., of Orange, N. J., writes on "Fresh Air Classes in the Prevention of Tuberculosis." Mary E. Lapham, M.D., Highlands, N. C.,

has a paper on "The Prevention of Tuberculosis from an Economic Standpoint." Most interesting is an article entitled "The Treatment of Surgical Tuberculosis, Especially in Children, at Leysin in the Swiss Alps, and at the Marine Hospital, Berck Plage, France," by Guy Hinsdale, M.D., Hot Springs, Va. Alfred Friedlander, M.D., of Cincinnati, also adds a paper on "Tuberculosis in Childhood." "Open Air Schools in Pulmonary Tuberculosis," by John V. Van Pelt, an architect of New York; "Open Air Pavilions for Housing Tuberculosis Children," by Thomas S. Carrington, M.D., New York, Assistant Secretary of The National Association for the Study and Prevention of Tuberculosis, give contributions on the side of construction. "Tuberculosis in Ireland and the Crusade Against It," by Sir John Moore, M.A., M.D., Dublin, Ireland, attracts attention as does "The Feeding of the Tuberculous" by Charles Rayevsky, M.D., Liberty, New York.

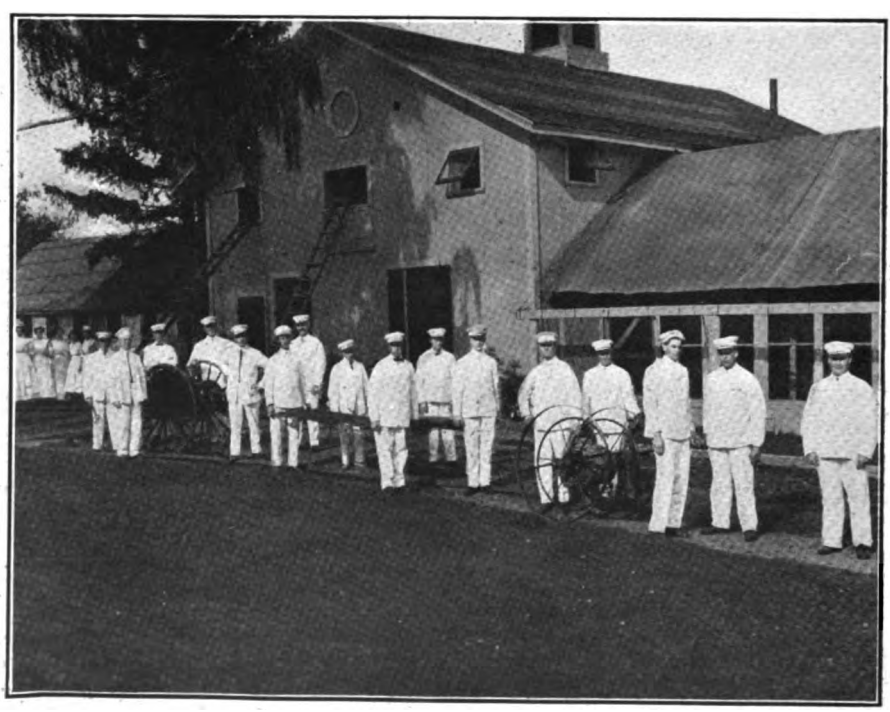
These are but a few of the many helpful articles in this special number.

Iola's Report

Accompanying this article are reproduced two of the many interesting illustrations in the annual (1913) report of Iola Sanatorium, Monroe County's Hospital, located at Rochester, (N. Y.). This institution was opened in a temporary building in October, 1910. The permanent buildings with capacity for 60 patients were occupied in the winter of 1912, but the wooden shacks could not be abandoned because of the number of applicants for treatment. Seventy-five thousand dollars has recently been appropriated for a new 100-bed infirmary. A children's pavilion and open air school are operated in connection with the hospital and a training school for nurses is planned for the future. The Sanatorium employs a welfare nurse who investigates the homes of patients and follows up discharged cases. Of 242 patients admitted during the year 174 were sent by 98 physicians, indicating unusual co-operation of the doctors.

"Clinic Notes"

"Clinic Notes," Vol. I, No. 1, March, 1914, "Issued Monthly for the Information of Clinic Physicians and Nurses" by the Association of Tuberculosis Clinics, 105 East 22nd Street, New York City, has appeared to swell the number of Bulletins, Reports, etc., issued from different sections of the tuberculosis field. The "Foreword" of this 4-page leaflet sets forth its purpose: "It is hoped that Clinic Notes * * * will do for all the clinics in the city what the Department of Health publication did for its own clinics, bring them closer together, stimulate a healthy rivalry and



IOLA SANATORIUM'S FIRE BRIGADE.

strengthen the *esprit de corps* among clinic workers. Various news items, tables of registered cases by districts and work reported by the various clinics in New York City compose the balance of this new sheet."

Vol. 29, No. 9 of "Public Health Reports," issued by the United States Public Health Service, includes some illustrated comments on screening with immediate reference to preventing malaria by R. H. von Ezdorg, Surgeon, V. S. Public Health Service. The article gives a number of good practical suggestions for screening the ordinary houses with estimates of cost, which will be of particular value to readers of the Journal. Remember, however, there are not enough "swats" even in the most righteously and well conducted campaign to give each fly its fair share of one swat, so—"OSTRACISE THAT FLY."

BABYHOOD AND OLD AGE AT IOLA SANATORIUM.

Tuberculosis in Families

The United States Public Health Service in the February issue of "Public Health Reports" prints an article on the subject, "Tuberculosis, To What Degree Is It Spread by Association in Households?" The article deals briefly with the misconstruing of Dr. Edward R. Baldwin's statement of the relative danger of infection to adults and children mentioned in last month's Journal. Dr. Baldwin claimed that the greatest danger of tuberculosis infection is in childhood. A review is also given of the investigation of Dr. Herbert G. Lampson on the "Spread of Tuberculosis in Families in Minneapolis." The article concludes: "Similar investigations should be carried on by health departments in other cities to ascertain whether the conditions of household infection found by Lampson in Minneapolis exist elsewhere."

Ostracise That Fly!

"Swat that Fly!" is the brief verdict of the jury of mankind concerning this particular pest. So 100,000,000 men and women and children take unto themselves swatters and swat enthusiastically and without discrimination. Swatting is the proper medicine for the fly, and helps to a certain extent. But then there are many millions more of flies than there are swats,—so a few billion or trillion escape and remain uncared for.

"Ostracise that Fly" is a better policy. See that precautions are taken, feeding places destroyed or covered, screens, etc., provided, so that the little fly, so anxious to be an entertaining guest, must stand on the outside or die for want of food.

Fatality Rate of Tuberculosis

Reprint No. 163 from the U. S. Public Health Reports issued by the United States Public Health Service contains statistics of the prevalence of communicable diseases, including tuberculosis, for the year 1912 and the first six months of 1913 for certain states and territories. The tables gives the total cases reported, number of deaths, and the case and fatality rates per annum. The figures furnish interesting information of the relation of cases reported to deaths. While it is well known that reporting of living cases of tuberculosis is not perfect in any state a few of the rates given for this disease may be of interest. For example, the highest case rates per 1000 population were in Maryland (exclusive of Baltimore), 4.338, and in District of Columbia. 3.632, while New York had a rate of 3.204, Oklahoma, the lowest, 0.582, and Pennsylvania, 1.44. The fatality rate, or the percentage of deaths to living cases varies from 79.13 in Connecticut and 83.44 in Kansas to 31.03 in Virginia, 42.48 in Michigan and 51.74 in New York.

Copies may be secured from the Government Printing Office, Washington, D. C., at five cents each.

NOTES AND NEWS

Chicago Sanatorium Looking For Staff Officers

Work on the construction of the New Chicago Municipal Tuberculosis Sanatorium, which will be open before the end of this year with an initial capacity of six hundred beds, and which will ultimately contain nine hundred beds, is rapidly nearing completion. The sanatorium is located on a 160-acre tract near the city limits. Because of the unique position of this sanatorium in the anti-tuberculosis movement in Chicago and Illinois, a special effort is being made to secure a staff of the highest possible competency. At the present time a medical superintendent of the sanatorium, and also a superintendent of nurses are wanted.*

Home Economics Department for Seattle

As a result of the activity of the Red Cross Seal Committee of the Anti-Tuberculosis League, Seattle is to have a fully equipped home economics department for the care and assistance of tuberculous families. The department will be in charge of Miss Louise Nelson, who will assist families to work out domestic budgets proportionate to their incomes and to use many domestic science makeshifts known to the trained housewife. Miss Nelson will teach families how to cook the cheapest and simplest foods in the most attractive way, and will conduct excursions to give instructions in the proper methods of buying.

Ohio Tuberculosis Conference

The First Conference of Tuberculosis Workers in the State of Ohio, at which John H. Lowman, M.D., President of The National Association for the Study and Prevention of Tuberculosis, presided, met at Columbus February 26 and 27. "Local Anti-Tuberculosis Societies in the State"; "Hospitals for the Care of Tuberculosis Patients," and "Open Air Schools and Physical Supervision of School Children," were the subjects which occupied the first session. The remaining two sessions discussed "The Visiting Nurse" and "Public Control of Tuberculosis." Robert H. Bishop, Jr., M.D., Chief of the Tuberculosis Bureau of the Cleveland Board of Health, and E. F. McCampbell, Ph.D., M.D., Secretary of the State Board of Health, were among the eighteen speakers on the program.

Congress on Occupational Diseases

The Third International Congress on Diseases of Occupation, of which Hon. William B. Wilson, Secretary of Labor, Washington, D. C., is chairman, will meet in Vienna, September, 1914, and consider among other topics the following:

(1.) The physiology and pathology of fatigue, with special reference to vocational work and to the effects of night work on the nervous system; (2.) Work in hot and damp air; (3.) Occupational anthrax; (4.) Pneumonomosis; (5.) Injuries caused by electricity; (6.) Industrial poisons, and (7.) Injuries of hearing caused by industrial pursuits.

A general invitation is extended to membership in the Congress. Membership fee in the form of postal money order for $5 should be mailed to the General Secretary, Dr. Ludwig Teleky, No. 23 Türkenstrasse IX, Vienna, Austria.

Grand Rapids Increases Membership

At a recent meeting of the Grand Rapids (Mich.) Anti-Tuberculosis Society it was announced that 507 new members to the society, a 100 per cent gain, have been secured during the past year. The total receipts for the year amounted to $8,027.98, with expenditures of $6,658.48. The Executive Secretary estimated that 100,000 people in the city and Kent county had been reached during the 1913 educational campaign of the society. Plans were discussed for extending the city work to include the entire county of Kent. The society profited materially in the Red Cross Seal sale from the assistance of the Junior Association of Commerce, an organization of young men.

HOSPITAL NOTES

Chicago's New Hospital

The new Cook County (Ill.) Tuberculosis Hospital at Oak Forest, near Chicago, is nearing completion. When the new building is finished and the old one altered the institution will have a capacity for 600 patients. A new departure in construction has taken the form of eight open-air cottages for convalescent patients.

Another County Hospital for New Jersey

The new Morris County (N. J.) Tuberculosis Hospital, situated a short distance outside of Morristown, has recently opened for the care of patients. The institution, which will accommodate 30 patients, cost for building and site $50,000. Ten thousand dollars has been appropriated by the County Freeholders for current expenses. The hospital is located on a farm of eighty-seven acres, high above the surrounding country, which presents a beautiful panoramic view for many miles. This is the fifth county hospital to be opened in the state.

A New Hospital in Ohio

Franklin County, Ohio, in which Columbus is located, has just opened its new $100,000 tuberculosis hospital with a capacity for 100

*See adv., p. xvi.

or 120 patients. Miss Aldisia P. L. Lawin, previously director of nurses of Grant Hospital and at one time superintendent and head nurse of the State Tuberculosis Hospital at Shelton, Conn., has been appointed superintendent of the new institution. The patients, who are now housed in temporary shacks on the infirmary grounds, will be the first to receive treatment in the permanent hospital.

Hospital Contract for Indiana County Hospital

According to present plans, contracts for St. Joseph County's (Ind.) new tuberculosis hospital, near South Bend, will be let by April 1st. Applicants to the local anti-tuberculosis league for treatment are so numerous that it has not the means of caring for them in its small camp. The hospital is to be erected and maintained under the provisions of the state county tuberculosis Hospital Law enacted by the 1913 session of the legislature. This law provides that as soon as contracts are awarded the county commissioners shall appoint a board of four managers, two of whom shall be physicians, which will have charge of constructing and maintaining the institution.

Sanatorium Destroyed by Fire

The Blue Mound Tuberculosis Sanatorium, ten miles west of Milwaukee, and owned by that city, was recently destroyed by fire. Officers and nurses risked their lives to save the helpless patients, and while no lives were lost, it was feared that some of the patients would die from the short but unavoidable exposure in zero weather. Plans were being perfected to remodel and enlarge the institution before it was burned.

Detroit's Hospital Campaign

The Detroit Sanatorium has completed a strenuous campaign to raise $50,000 for an addition to the present institution, which accommodates 32 patients, and to discharge an indebtedness of $7,000. Plans have already been perfected and committees appointed for the Blue Star sale in June. Several thousand dollars is annually raised to support the sanatorium by this sale. The Detroit "News" carried on an extensive publicity campaign to help this work.

Delaware's Negro Hospital

Until more permanent arrangements can be effected, the Delaware Tuberculosis Commission since January 1, 1914, has been caring for tuberculous negroes in the infirmary at Hope Farm, the sanatorium of the Delaware Anti-Tuberculosis Society. After the first two patients had been there long enough to send home favorable reports, prejudice and fear began to give way and now there is a waiting list in addition to the seven patients in the institution. Dr. Banton heads a staff of colored doctors, assisted by a nurse, Elizabeth Tyler, and a matron, both colored. The Colored Ministerial Association and a class of colored girls are raising money to assist in the support of the hospital. The State Legislature during 1913 appropriated $10,000 for the building and $5,000 for the maintenance of a negro tuberculosis hospital. This is the first state institution of its kind in the country.

Negro Self Help

At an ultimate cost of $15,000 for site and buildings, the Wilson (N. C.) Hospital and Tubercular Home for Colored People will open its doors during 1914 for the reception of patients. Under the leadership of J. D. Reid, principal of the Wilson Negro Public School, $8,000 has already been raised for the enterprise, and it is hoped that once the hospital is operating that some state aid may be secured.

Masons Active in Campaign

The Grand Lodge of Masons at their meeting in Raleigh, N. C., voted $500 to pay for the treatment of needy persons at the State Tuberculosis Sanatorium at Montrose, N. C. The inadequacy of the funds provided by the state make necessary a minimum charge of $1 per day for patients who receive treatment. It is hoped that the Masons' example will be followed by other fraternal orders, churches, etc. One of the duties of the recently established Department of Tuberculosis will be to secure contributions and support of this character.

* * * * * * * *

Organize Massachusetts Anti-Tuberculosis League

At a well attended meeting of delegates from the various Anti-Tuberculosis Associations of the state held at Boston, recently, the Massachusetts Anti-Tuberculosis League was formed. Already twenty-three anti-tuberculosis associations have joined the league for the purpose of working together in the fight to eradicate the disease in Massachusetts. The office of the League will be at 4 Joy Street, Boston, and anyone interested in the problem can become a member by the payment of $1.00 per year. Anti-Tuberculosis Associations and other health organizations are eligible to membership. Seymour H. Stone, Secretary of the Boston Association for the Relief and Control of Tuberculosis is the Secretary. For the last ten years the Boston Association has served the entire state, assuming many of the functions of a state organization. With the rapid growth of local associations, however, it was felt that some more representative body was needed, to co-ordinate the organizations and to cover ground where no work was being done. The League is the outcome of this feeling.

Travelling Campaigners In Indiana

For the purpose of utilizing the small funds, amounting from $40 to $400, collected by local societies during the Red Cross Seal Campaign, the Indiana Society for the Prevention of Tuberculosis is sending a number of trained anti-tuberculosis workers into these various communities for brief periods. The workers are paid by the local societies at the rate of $20 to $25 a week. Already a sufficient number of calls for workers have

been made to cover an itinerary of six months. In three counties arrangements for nurses for the fall months have been made. These campaigners will deliver addresses before schools, clubs and churches and other bodies. They will carry on publicity campaigns, and studies of local conditions, and in general give advice as to the future of the work. This plan will prevent the frittering away of small sums of money in many communities.

What One Bible Class Did

A men's Bible class of the First Presbyterian Church of Ashland, Kentucky, has been influential in working up a campaign against tuberculosis and in securing a visiting nurse. The class induced the State Tuberculosis Commission to send a nurse to make a survey. Then, when the facts were at hand, a broader work along non-sectarian lines was undertaken. With the aid of Red Cross Seals and personal subscriptions, already $130 a month is pledged, and more will come. A nurse has been engaged permanently and the prospects are bright for a thoroughgoing campaign.

Pennsylvania's Tuberculosis Machinery

In a letter which the Pennsylvania State Department of Health has sent to every physician in that state, some interesting information with regard to the anti-tuberculosis machinery is given. The state has two sanatoria in operation, one at Mont Alto, with a capacity of 1,058 beds, and one at Cresson

TAKING THE CURE AT THE DETROIT TUBERCULOSIS SANATORIUM.

Vol. XI. NOVEMBER, 1914. No. 11

Journal of the
OUTDOOR LIFE

TEN YEARS' WORK AT GAYLORD FARM SANATORIUM*

BY PROFESSOR IRVING FISHER, NEW HAVEN, CONN.

At this meeting of the association it has seemed fitting to your directors that we should review, not simply the work of the last year, but that of the entire decade during which Gaylord Farm Sanatorium has been in operation.

The origin of this institution and the growth of its work are the natural fruition of a movement, the beginnings of which must be placed at least two generations earlier. About three-quarters of a century ago Bodington, a country practitioner in England, treated his patients by the out-of-door method. Bodington's method was remarkably similar to that employed to-day in this and other modern sanatoria. There was still living a few years ago one of Bodington's patients, then an old lady, who bore living testimony to the credit due this early pioneer. Unfortunately the usual fate of pioneers in medicine befell Dr. Bodington. He was ridiculed by the London Lancet and the medical profession generally and thereby a precious boon to humanity was delayed for the greater part of a century.

It was not until the out-of-door idea was later espoused in Germany, first by Brehmer in the middle of the nineteenth century and afterward by Dettweiler, that the belief in the curability of tuberculosis by the fresh air method really took root and began to grow.

In this country the first physician to take up the out-of-door treatment was Dr. E. L. Trudeau, whom we are all proud to have as one of our three honorary directors and of whom I personally am proud to have been at one time a patient.

It was thirty years ago, shortly after Koch had discovered that tuberculosis was caused by a specific germ, the tubercle bacillus, that Dr. Trudeau established the Adirondack Cottage Sanitarium, the mother of this and of every other American institution for treating tuberculosis and the school in which our efficient medical superintendent, and many others now engaged in similar work, received their first education and inspiration. But it is only within the last decade that the noble little band of pioneers led by Dr. Trudeau began to see their work spread and prosper.

Besides Dr. Trudeau our other two honorary directors, Dr. E. R. Baldwin and Dr. S. A. Knopf, have done much to stimulate the public spirit that led to the establishment of Gaylord Farm Sanatorium. Dr. Knopf's influence was largely through his prize essay on tuberculosis and Dr. Baldwin's—who for years has been Dr. Trudeau's co-worker—was through direct suggestion to a professor of the Yale Medical School, of which he is a graduate. As a consequence of these and other influences and conditions the general agitation of medical opinion finally crystallized when the New Haven County Medical Association, in October, 1901, at the suggestion of Dr. Oliver T. Osborne, appointed a

* This report was presented at the recent Tenth Annual Meeting of the New Haven County Anti-Tuberculosis Association, which operates the Gaylord Farm Sanatorium. Prof. Fisher is the recording secretary of the Association.—Editor.

committee "to confer with the various Health Boards of the county and adopt some means of legislative aid in the fight against tuberculosis."

It was on November 4, 1902, that our president, Dr. Francis Bacon, announced to the directors the munificent gift, then anonymous, of Kate Fellows Wheeler, wife of John Davenport Wheeler. Mrs. Wheeler soon placed her gift, which amounted to $40,000, in the hands of Dr. Bacon, to be used for purchasing land and erecting a main building and four cottages. The gift was in memory of her parents, Mr. and Mrs. Richard Fellowes, and the buildings erected constitute therefore the "Fellowes Memorial." This substantial and wholly unexpected gift put our Association on its feet immediately and enabled our work to prosper from the start. For it we to-day once more register our lasting gratitude to the donor.

The site originally selected in the spring of 1902 lay in the town of Prospect, but this was discarded later in favor of Gaylord Farm. Accordingly, on January 30, 1903, President Bacon was authorized to buy the Gaylord Farm and to proceed with the plans for a sanatorium. On the same day Dr. Lyman was engaged as medical superintendent to take charge, as soon as possible, of the work of converting the Gaylord Farm into the Gaylord Farm Sanatorium. On March 9, 1903, the directors tendered a vote of thanks to Dr. C. W. Gaylord, now vice-president, "for his interest in the work of this association, as manifested in the very moderate price for which he sold his farm and for his offer of ten additional acres as a gift to the Association."

The directors next appealed to the legislature of the state for aid and secured an appropriation of $25,000. The bill appropriating that amount was passed May 11, 1903. Rollin S. Woodruff, then state senator, was the one asked to take care of this bill. Afterward, as Governor of Connecticut, he rendered still more important services in the promotion of this cause.

The contract for the first buildings, that is those given by Mrs. Wheeler, was signed by President Bacon on August 13, 1903, and ground was broken before the first of September. Twelve months later, on September 10, 1904, the buildings, completed and furnished with a system of drainage, sewerage, electric light and graded roads, were turned over to the Association and paid for, within the sum appropriated with a little margin to spare. The sanatorium was actually opened on September 20, 1904, with six patients. For the rapid and efficient work in building the sanatorium great credit is due to Dr. Foster and Dr. Lyman.

After the expenditure of the first gifts of $40,000 and the first state appropriation of $25,000 many other gifts were received. Although our needs have always kept in advance of our resources, it seemed, as Dr. Foster once said, that we only had to state our needs as they developed one by one, in order, within a few months, to have some generous donor satisfy them.

The state, besides giving the original lump sum of $25,000, has contributed to our current support at every session since. These annual subsidies began with $2,500 and increased until during the last year we have used from state funds over $11,000.

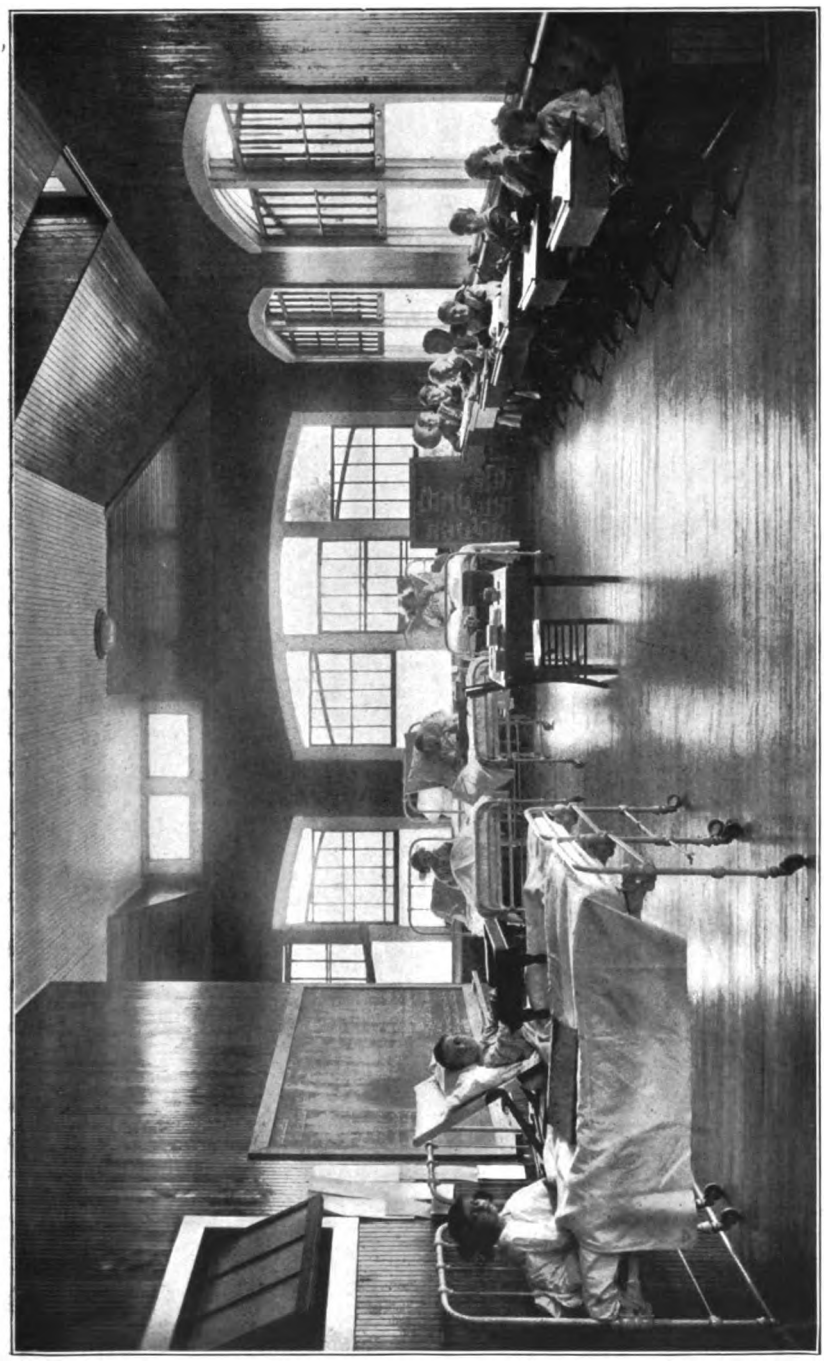
The growth of the institution is well shown by its annual expenditures. Following the first year, in which the initial total expenditures were made, amounting to $104,346.13, the sanatorium expenditures in the succeeding years has been: Second year, $24,039.60; third year, $26,057.02; fourth year, $27,636.42; fifth year, $39,736.44; sixth year, $31,757.32; seventh year, $40,955.29; eighth year, $68,-354.64; ninth year, $51,142.90; tenth year, $66,-635.18.

At present an inventory of our property shows that we have:

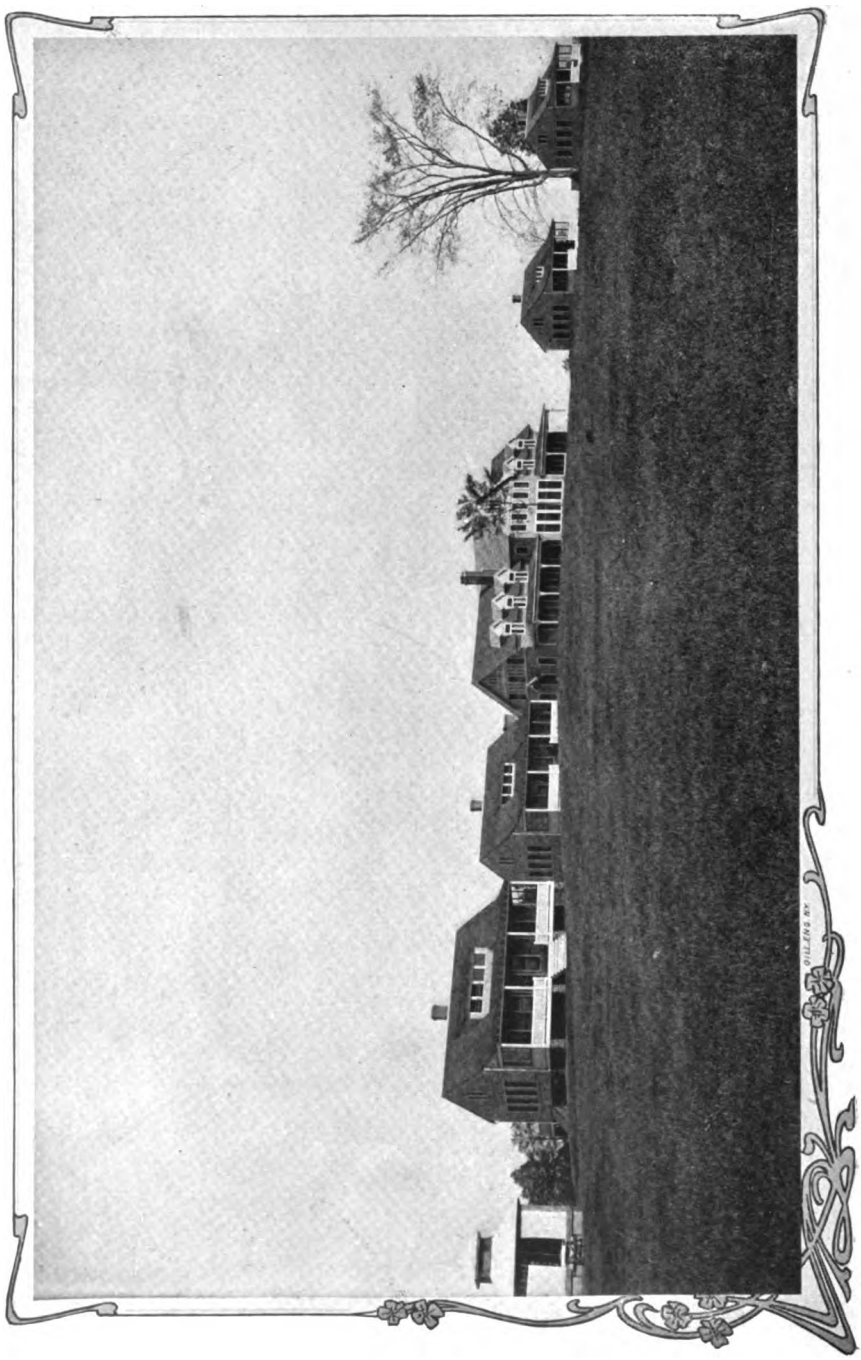
Land—304 acres at $50 per acre	$ 15,000
Sanatorium Bldgs. and Equipment	164,000
Farm Capital (dairy herd, calves, horses, poultry, cordwood, etc.)	9,000
Total	$188,000

In the management of the farm there has been sometimes a loss and sometimes a gain. During the last three years there has been a profit, which during the year just closed has reached the surprising sum of nearly $4,000.

1st year	"About even"	
2d year	Loss	$873.28
3d year	"	154.68
4th year	Profit	203.73
5th year	Loss	365.49
6th year	Profit	388.10
7th year	Loss	130.29
8th year	Profit	104.16
9th year	"	727.65
10th year	"	811.72



IN THE CHILDREN'S PAVILION.



A GROUP OF COTTAGES.

The free-bed fund, which now plays an important part in our work, has increased from $250 in 1906 to over $6,000 in the last year, 1913-1914.

The charge which has been made for the treatment of patients has from the beginning been $7.25 a week per patient. This has not covered the cost. In our first year the cost per patient was $17.22, since which time it has been about $12 per patient and has shown no tendency to increase, in spite of the increase in the cost of living.

The figures for the different years are as follows: First year, $17.22; second year, $12.06; third year, $12.58; fourth year, $11.13; fifth year, $11.55; sixth year, $11.76; seventh year, $12.16; eighth year, $12.34; ninth year, $12.39; tenth year, $11.79.

The patients admitted to the sanatorium have numbered altogether nearly 1,400. Of this number, 256 were incipient cases, 750 moderately advanced and 213 far advanced. Of the incipient cases remaining three months or more 91% were discharged arrested; of the moderately advanced, 60%; of the far advanced, 19%, and of all together, 60%. This is a wonderfully good showing. It is also very gratifying to know that of the incipient cases from 80 to 90% are to-day in as good a condition as when they left the institution, and that out of less than 1,400 who have left the institution—including many advanced cases and many who enjoyed its treatment only a few days or weeks—at least 933 are living to-day. The patients have come from almost every ordinary occupation. Among the larger numbers 202 are registered as housewives, 129 as shop hands, 69 as office clerks, 45 house work, 33 machinists, 32 school children, 27 stenographers, 19 bookkeepers, 14 no occupation, 14 sales clerks, 14 watch makers, 13 housekeepers, 12 carpenters, 12 store clerks, 10 laborers, 10 bar tenders.

The number of patients who have gone out from the sanatorium in successive years has been as follows: 1903-'05, 25; 1905-'06, 71; 1906-'07, 104; 1907-'08, 117; 1908-'09, 121; 1909-'10, 166; 1910-'11, 164; 1911-'12, 152; 1912-'13, 183; 1913-'14, 232.

The number of members in the Association has grown from 327, the number published in the first report nine years ago, to 896 to-day. The following table shows the growth: 1905, 327; 1906, 363; 1907, 453; 1908, 564; 1909, 738; 1910, 653; 1911, 819; 1912, 887; 1913, 896.

If now we ask ourselves what has actually been accomplished by our loved Institution, we must look to the patients who have been restored to health. The hundreds of patients who are present to-day give testimony in their own persons of the results accomplished.

We can measure a small part of the good accomplished through Gaylord Farm by considering the earnings which our patients restored to health have made. These earnings have been carefully collected by Dr. Lyman and they foot up close to one and one-half million dollars.

The total amount expended on Gaylord Farm up to April 30, 1914, including all maintenance, running expenses, farm expeditures, plus 5% of the capital invested in land, buildings and equipment, amount to only $400,500, leaving the balance of the earnings by patients above all expenditures at something over the million dollar mark. A return of a million and a half on a cost of a half a million is certainly "good business." Moreover, the cost is really much less than these figures show. The cost of our ten years' work, reckoned by excluding the value of the plant we still have, has been only $213,000. That is, if we may credit our institution with the lives saved to earning power, we may say that for every dollar expended on Gaylord Farm the State of Connecticut has received back in actual earnings almost $7. But this is not the only or even the chief financial return. There is a much larger result in the fact that there are several hundred patients still living who will earn even more in the future. In fact, they represent a capital, as it were, of potential earning power worth many millions of dollars. While it would be foolish to attempt any exact measurement of the rate of financial return, we can surely say that, merely on the basis of dollars and cents, the investment in this institution pays large financial returns to the public.

The more substantial results, however, are those which cannot be measured in dollars and cents. They consist in the conservation of those higher values, which we all assign to human life saved and human happiness increased.

Finally, we must add to all these results enjoyed by the patients, who are the direct beneficiaries of this institution, certain indi-

rect effects, more difficult to trace, but more important in the aggregate, effects felt in the lives and fortunes of the families, neighbors and friends of the patients, as well as the general public.

Our real mission is not so much to cure as to prevent tuberculosis by reforming unhygienic living and elevating the health ideals of the people. The truth is that the influence of this institution cannot be considered simply by itself, but must be taken in its relation to the general tuberculosis movement throughout the state, the nation and the civilized world. We have already seen that this institution grew out of this world movement and has received help from it during the decade of its existence. On the other hand, it has re-acted upon that movement and contributed to it in many ways.

The state tuberculosis sanatoria are, to a large extent, a result of the Gaylord Farm Sanatorium. It was chiefly the enthusiasm of Dr. Foster, as chairman of our executive committee, which led to the state tuberculosis commission, of which he was the first chairman, and for which he did, at first, the major part of the work. Dr. Stephen J. Maher, his successor, has also been for years one of our directors, and his associate, Dr. Lyman, is our medical superintendent. The history of these state sanatoria is sketched for me by Dr. Maher as follows: "In June, 1907, Governor Woodruff was empowered by the legislature then in session to appoint a committee to investigate the tuberculosis situation in Connecticut and to report to the next legislature its findings and recommendations. This commission advised that state sanatoria be erected by the state near the centers of population and these sanatoria be opened to every tuberculous citizen of the state, whatever his financial condition, and in whatever stage of the disease he might be. The legislature accepted and followed this advice. State sanatoria were opened at Meriden and Shelton in 1910, at Hartford early in 1911, and in Norwich in 1913. These sanatoria now care for nearly six hundred patients and cost the state more than two hundred and fifty thousand dollars a year. The average cost of maintenance per patient is eleven dollars a week. Of this sum, the state pays out of its treasury all but four dollars. The four dollars must be supplied by the patient, or his friends or by the town in which he has a legal residence.

"The management of the sanatoria is entrusted to a State Tuberculosis Commission, consisting of three members, one of whom must be a physician of at least ten years' practice, and an expert in the treatment of human tuberculosis."

Another important factor in our fight against tuberculosis will soon be in operation in connection with the New Haven Hospital. An anonymous donor has given over a million dollars for a special tuberculosis hospital and its endowment.

I am informed by Mr. Harry G. Day, who has the matter in charge, that: "Working plans and specifications have been completed for a 100-bed institution for the treatment of advanced cases, upon the hospital property on Campbell Avenue, West Haven, just south of the Berkshire Division track. It will take something over a year to complete and equip the institution. The buildings will be of brick and stone, semi-fireproof construction, and in addition to the central group of buildings for the care and treatment of patients, there will be a lighting and power and laundry plant, a nurses' home, and a resident physician's cottage. The amount of the fund is sufficient, so that after the completion of the building there will be an endowment fund of more than $500,000, which will, in large part, take care of the expense of maintenance and operation."

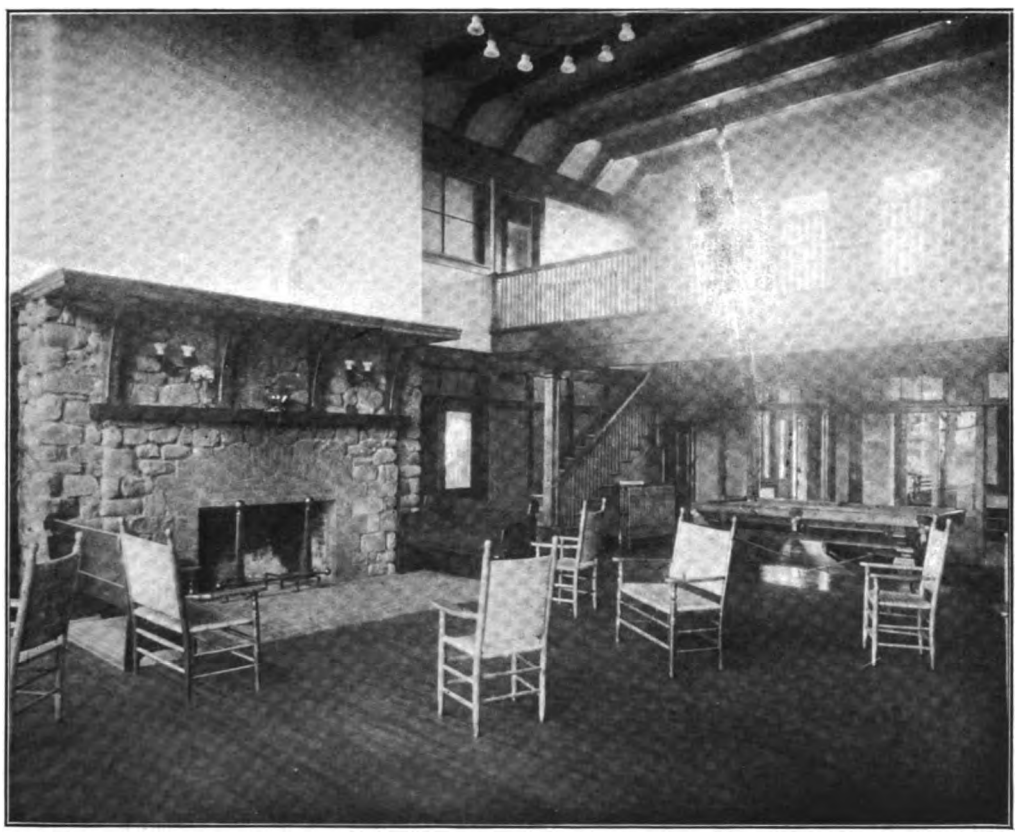
A Tuberculosis Clinic was established in 1907 by the New Haven County Anti-Tuberculosis Association in co-operation with the New Haven Dispensary. Beginning in a small way with a few patients obtained from the medical service of the dispensary, it has grown into a clinic of considerable size. Last year 271 new patients were admitted and there are at present 270 patients listed in the active file. Dr. Standish, its first head, is still carrying on this work, in conjunction with the Visiting Nurses' Association of New Haven.

The Visiting Nurses' Association was originated a year after Gaylord Farm Sanatorium was opened. It now employs five nurses for its tuberculosis work and last year sent 105 patients to various institutions, including 17 to Gaylord Farm. In addition, over 300 patients per year are visited in their homes. A day camp was started by the Visit-

ing Nurses' Association with the aid of the New Haven Hospital and the co-operation of Gaylord Farm and other agencies in 1910. The New Haven Hospital now assumes the expenses of this camp and has added facilities for some night camp work on the grounds soon to be occupied by its new tuberculosis hospital.

The location of the first day camp, in 1910, on Shelton Avenue aroused bitter opposition, which was overcome through the combined efforts of our and other organizations. The number enrolled in the day camp in 1913 was 101. The patients are mostly children. One gained 13 pounds in the summer!

The Employees' Relief Association, launched two years ago, has been a very valuable factor in helping a large number of tuberculous patients, discovered by the Visiting Nurses' Association to go to sanatoria. The Employee's Relief Association originated with Mr. John F. Gunshannon, of Hartford, formerly a member of the State Commission on Tuberculosis. The work of organizing the Employees' Relief Association began in 1905, since which time over 100,000 men have contributed to the anti-tuberculosis work as members of the various Employees' Relief Associations. This association has helped, up to January 1st last, 117 persons. Such relief associations have, through the energy and enthusiasm of Mr. Gunshannon, been established in all of the large cities of the state except one.



THE COZY RECEPTION HALL.

Among the important developments of the tuberculosis work has been the establishment of open air schools. In this county apparently the first open air school was established in December, 1911, by Mrs. Hocking, wife of Prof. William E. Hocking, of Yale. It is now located on Edwards Street, and is

under the Board of Education of New Haven. Miss Lum, who has a school at the corner of George and Dwight Streets, New Haven, has also, during the last two years, had open-window rooms. This year Miss Glendinning has had two open-window rooms in her school on Edwards Street. Plans to establish an open air roof school at one of the New Haven public schools, funds for which have been contributed by Mrs. J. S. Ely, are in progress.

Our Association has co-operated with other organizations more distantly related to the tuberculosis problem. For instance, it endorsed and helped the work of the Tenement House Committee, in 1905, to secure the passage of a tenement house law. It also assisted in the organization of the Improved Housing Association.

The Association has, since 1910, in co-operation with the National Association for the Study and Prevention of Tuberculosis, promoted the observance of Tuberculosis Sunday. Letters were sent by the Recording Secretary to all the clergymen of the state, except those living in places where local associations had charge of such work.

Among the agencies fighting tuberculosis should be mentioned the State Board of Health, which, in addition to the State Tuberculosis Commission organized in 1905 a bacteriological laboratory which has done anti-tuberculosis work. In 1909 it secured the passage of a statute regarding the care and reporting of tuberculosis, and also the State anti-spitting law, and aided in establishing the law to abolish the use of a common drinking cup. It also made a large number of milk examinations for the towns of the State and has issued various leaflets and pamphlets on tuberculosis. The county and city health officers of New Haven have disinfected places where tuberculous patients have lived.

Our Association has been represented at mass meetings, conferences and congresses and has tried to keep in touch with the work of other similar bodies in the country, State and nation.

With the Gaylord Farm Sanatorium the State Home for Tuberculosis, with the New Haven Hospital equipment, the New Haven Dispensary for tuberculosis, the house to house work of the Visiting Nurses' Association, the New Haven Employees' Relief Association, with the Day and Night Camps, the out-of-door and open-window schools, the Improved Housing Associtaion, the Waterbury Anti-Tuberculosis League, the Meriden Tuberculosis Relief Association, and the State Board of Health, New Haven County has one of the best equipments for fighting tuberculosis in the United States or in the world.

Outside of the county the State Tuberculosis Commission has its other homes and there are several local anti-tuberculosis organizations, including a summer camp for girls at Litchfield, maintained by the Reverend Mr. Chapman. Active work is being done in Hartford, South Manchester, New Britain, Norwalk, Stamford and Bridgeport.

Outside of the State of Connecticut the influence of our institution has been not inconsiderable. Gaylord Farm might almost be called a Mecca, to which pilgrimages have been made from many States by those intending to build sanatoria. It has been the inspiration for the formation of other anti-tuberculosis associations and sanatoria, hospitals and dispensaries. It has supplied what many of us believed to be the best type or model for combining the activity of the State and of the general public in the hygiene of tuberculosis. Where different models have been followed, results have seldom if ever been as satisfactory as those which we have experienced. In states where sanatoria have been instituted by the government without private co-operation, they have been more or less blighted by politics Where, on the other hand, anti-tuberculosis work has been undertaken without state aid, it has been crippled for lack of funds. A happy combination of state aid and private initiative seems to be the true solution.

Aside from supplying a model for organization and administration, our association has lent specific aid to the anti-tuberculosis work outside of the state. Dr. Foster was one of the first directors of the National Association for the Study and Prevention of Tuberculosis, and helped to lay down the general line of policy it has pursued, and we now have in Dr. Lyman, as a director of and a member of the executive committee of this national association, a new link between it and our local organization. The National Association has helped to establish over 1,000 state and local anti-tuberculosis societies; helped to secure over 550 hospitals and sanatoria, with more than 35,000 beds for patients; 400 dispensaries, with over 1,000 physicians in attendance; over 200 open air schools and fresh air classes for anaemic and tuberculosis children; and more than 3,000 nurses engaged in tuberculosis work. It has helped to get laws passed in forty-five states and local ordinances in over 200 cities, dealing with the treatment and the prevention of tuberculosis. Active field campaigns of education in forty states and territories have been carried on and no less than 100,000,000 pamphlets on tuberculosis have been distributed in the last ten years. The National Association itself has expended in ten years only $200,000. but has stimulated national, state, and local agencies to expend about $100,000,000. It is reported that out of $20,000,000, which were expended last year in the fight against tuberculosis, over two-thirds, or nearly $14,000,000, were expended out of public funds. These include expenditures by federal, state, county, or municipal governments.

The National Red Cross has likewise stimulated tuberculosis work and sentiment throughout the county, especially through the institution of the Red Cross Christmas

stamps or seals, which have been supplied to agents throughout the country, the Red Cross receiving in return only 10% of the gross proceeds from the sales, the remaining 90% going to the local tuberculosis work. In this country the Visiting Nurses' Associations have received the proceeds of this sale. The growth of this sale, since its establishment in 1907, has been phenomenal, and in 1913, approximately $400,000 worth of Christmas seals were sold. In Connecticut the sales have been made through ten to thirty different local organizations selling from 5,000 to 300,000 seals each, or about 1,100,000 for the state.

The best way of registering statistically the general effect of the anti-tuberculosis movement is in the reduction of the death-rate It is found, according to the census reports, that tuberculosis in all its forms in the states where registration has been kept since 1900, has declined from 181 per 100,000 in 1901 to 150 per 100,000 in 1911. This is a decline of 17 per cent. in ten years, the decline being 12 per cent. for males and 23 per cent. for females.

In Connecticut we have the following statistics:

	Death Rates per 100,000
1900	169
1901	157
1902	142
1903	142
1904	145
1905	146
1906	136
1907	149
1908	133
1909	135
1910	131
1911	127
1912	121
1913	118

This shows a decline, in ten years, from 142 to 118, or 17%.

For New Haven County we have the following statistics:

	Death Rates per 100,000
1900	179
1901	162
1902	160
1903	145
1904	151
1905	142
1906	143
1907	156
1908	139
1909	144
1910	135
1911	137
1912	125

The figures for 1913 have not yet been calculated by the State Board of Health. The figures as given show, to 1912, a decline in ten years from 160 to 125, or 22%.

We may say, therefore, that the decline in the death rate from tuberculosis has been the same in Connecticut as in the country as a whole, but greater in New Haven County than in either Connecticut or the country as a whole.

Dr. Frank Wright, Health Officer of New Haven, reports that in this city in 1913 the number of deaths from consumption was only 153, the lowest number since 1876, when the population was less than half of what it is at present.

But the real and lasting progress of the decade is a progress of ideas. We scarcely realize how, in a few short years, the public has been educated in hygiene, especially in the hygiene of fresh air. An incident of 1905 at the exhibit of tuberculosis which we held in New Haven will serve to mark the contrast between the ideas prevailing then and now. To illustrate the out-door cure, a wax figure had been placed in a reclining chair on a staging built out toward the street, and labelled "taking the cure." So lifelike was the figure, and so unheard of at that time was the practice of sitting or sleeping out-of-doors, that some well-intentioned persons complained and threatened to report to the police this "cruel exposure," of the supposed young lady in the sharp April weather. It may be presumed that now the benighted people who made these remarks and who at that time represented the opinion of perhaps 99 per cent of our citizens, have since become sufficiently educated to know that it is not a misfortune or cruelty, but a precious boon, not only for the consumptive but for people in general, to be able to remain outdoors and breathe the life-giving fresh air. Such skeptics as still exist should visit Gaylord Farm and see how the 100-odd patients —men, women and children—not only sit out but sleep out, and regard April weather as rather too mild to excite comment. They remain out when the thermometer registers below zero.

When our Association began there was probably only one person in New Haven who slept out of doors, and but few physicians in New England who employed out-of-door sleeping for their patients. To-day there are scores, perhaps hundreds, of sleeping balconies in New Haven, as well as almost every other city of the United States.

The work of our Association, then, is a part of a world health movement, a movement which means not simply a fight against germs but a reform of social customs—customs as to ventilation, the use of alcohol, of patent medicines and of habit-forming drugs; as to occupational strains and poisons, and as to foods and their uses. In short, our work forms a little link in that chain of human efforts designed to correct the evils of civilization and destined, we hope, some day to effect a veritable regeneration of the world.

WHEN TO TAKE THE CURE, AND WHY

BY EDWARD CUMMINGS, M.D., THE HINTON HOSPITAL, HINTON, W. VA.

In the course of nearly every untreated case of consumption there comes a time when the victim must give up—a time when he can neither work nor wait upon himself—a time when he can neither die nor yet be cured. This time of helplessness is usually quite a long time.

Now, about one-half of this time, if put in at the beginning in taking the cure, would generally be enough to conquer the disease entirely.

The following article will explain what is meant by taking the cure, and the importance of taking it early.

I.

If You Have Tuberculosis You Ought to Know It.

The man with beginning tuberculosis is often like a drifter in a boat floating down to the falls, who can be roused to his danger only by loud cries. He usually does not know that he has the disease, and, as a rule, he does not know there is a successful method of treatment now followed by physicians of repute the world over. He does not know because he dreads to go and find out. Now, why is this?

The child with diphtheria cannot understand how important it is for the doctor to look down his throat. The child knows, of course, that it is ill, but its immediate fear is that something is to be done to it that may *hurt*, and so it resists.

So it is with the child grown up—the man with beginning tuberculosis. He fears the doctor will tell him something—something that will *hurt*. For fear of that passing wince of pain he puts the thought from him. If he has tuberculosis he does not wish to know it.

He calls his trouble by various names, speaks of "stomach trouble," "grippe," "catarrh," "liver trouble" or "bronchitis." He is sure that he is simply a bit run down, and claims to feel as well as a man could wish to feel. He can give many reasons why it is impossible that he should have tuberculosis; perhaps none of his people ever had it, therefore (he thinks) he cannot have it.

Or, if it happens that his own brother died of it, he will hasten to explain that in his brother's case it was brought on by some extraordinary circumstance (a bad cold, for instance) and really did not belong in the family. As for himself, his lungs never hurt, therefore (he thinks) there can be no disease there; he has lost no weight, perhaps, or spat up no blood, or gone as far as night-sweats—indeed, I could not begin to tell the many reasons which (with a curious instinct of self-deception) a man may pitch upon to prove his point.

Or it may be that he is not obstinate, but that he has many cares, and hasn't the time to think about himself at all. It may be that it isn't a "he" at all, but a "she"—some overworked, child-ridden housewife, too much given over to the care of others to give one thought to the care of herself. He (or she) does not know about the ways in which tuberculosis makes its beginning. It may be that bad advice has been given by some person who was misled by the patient's healthy appearance. It may be for years he has been "getting ready" to do something about it.

But, unquestionably, the commonest cause of delay in seeking medical aid is the dread of knowing the truth. And he dreads to know it because of a false idea that tuberculosis cannot be cured.

If your health is not good, and you don't know what is the matter, and above all, if you have any symptoms which would direct any sort of suspicion to your lungs, remember that tuberculosis is the commonest of all diseases, and when taken in time, it is curable. Don't take chances—don't lose the golden time. Go to the very best doctor you can find—not to one who advertises a cure by mail without even seeing you. Go to some man who stands high among his fellow physicians. Tell the truth as nearly as you can, and give the doctor plenty of time. If he finds that you have beginning tuberculosis you are still fortunate in knowing it at a curable stage.

If your house took fire, would you not be lucky in finding it out while the blaze was small and could be put out?

II.

How the Treatment is Carried Out.

If you find you have tuberculosis, the thing to do is to undertake treatment without one day of delay.

You are probably aware that it cannot be cured by the use of drugs alone. These are most important, but to depend wholly upon medicines is to lose your chance. And yet all doctors agree that it is a curable disease.

If curable, then, how is it cured?

There is but one way. You should realize this at the start. In the present state of our knowledge it is the only possible means by which you may get well. This is the sanatorium method. It is called in practice by such slang phrases as "taking the cure," "doing the cure," "chasing the cure."

What is "taking the cure"?

It consists in living for a certain length of time under the guidance of an expert on tuberculosis. During this time you live according to certain very special rules which govern your whole daily life and your habits, your eating and drinking, your resting and exercising, your work, your diet, and your clothes. You live a life of rest in the fresh air, and are given a course of medicine by the doctor, who carefully observes the results of the treatment and makes a constant study of your case. It is sometimes called the open-air treatment, but fresh air is only a part of it. The sanatorium method uses all the means known to help you get well.

The ideal place to take the cure is a sanatorium—a pleasant open-air boarding house, usually in the country, in which you may live till you are cured or very much improved. But there are not enough of these hospitals to care for one-tenth of the people who have tuberculosis. You can be treated at home successfully if you have a physician qualified by experience, training and temperament to give you the modern specialized treatment. Just being a doctor does not qualify a man to do difficult surgery, neither does it qualify him, without specific training, to guide a tuberculous patient along the difficult path to health. Of one thing you may be sure: the doctor who contents himself with prescribing cod-liver oil, with a word or two of hazy advice about "taking all the raw eggs and milk you can" and "all the outdoor exercise you can" will prove of less than little help to you. Your doctor must take hold of your case with a firm grip and go into every detail of your way of living; he must be teacher, preacher, friend and captain; he must tell you the exact and particular things that you must do and those you must not do, and to do these things he must *know*.

III.

The Commonest of All Diseases.

Tuberculosis is a curable disease. We cannot lay too much stress on this fact, we cannot publish it too often, because there are many people who still think that consumption is always fatal. This is because the general public gets all of its strong impressions of the disease only from far-advanced and fatal cases. People do not hear much or think much about those cases that get well.

A man may have a serious struggle with tuberculosis, and with proper management and treatment will throw it off and recover his health. Then his friends smile and say, "You look mighty well; you don't look as though you ever had anything wrong with your lungs. I don't believe you ever did." No matter how sick he was, no matter if he had hemorrhage and a racking cough, no matter if his physician found his sputum reeking with the germs of consumption—it is all the same: let a man come out of the fight active, stout and smiling, and most of his friends simply cannot think (if they think about it at all) that he ever had tuberculosis.

As a matter of fact many such cures are taking place constantly in every community, but they make no impression. While his disease is yet in the curable stage, the consumptive seems like other people; there is no tragic circumstance to fix your curiosity or interest; his illness is not proclaimed, and when he *recovers*, that, too, is a private affair, unheeded and unpublished. If any impression at all is made it soon fades; even the patient himself is apt to forget it.

But when a man *dies* of it, that is a public affair. There is a funeral bell, a piece in the paper—"death from consumption"—and not only his friends but hundreds who may never have heard of the man until he died, are again impressed with the deadly work of the Great White Plague. That vivid impression helps to confirm the old fallacy that tuberculosis is always fatal.

What a pity it is that this ancient error should continue! The false belief is responsible for the deaths of thousands, for if the victim thinks the disease incurable he naturally doesn't want to know about it, and will do nothing to help himself.

Let us look the facts in the face: More people die of tuberculosis than of any other disease. That is a plain and simple truth, which everyone now understands. But turn to the other and brighter side of the picture: More people recover from tuberculosis than die of it. It may be that you have heard some such statement before; but did it impress you? Did you stop to think what it means? The actual fact may be expressed in terms far more sweeping. The most eminent physician and the highest popular medical authority of this generation is Dr. William Osler. In his work on the Practice of Medicine Dr. Osler gives figures which show that more than a majority of all grown persons have at some time suffered from tuberculosis.

It is of the highest importance for everybody to understand that this disease is the commonest of all diseases, and that it is curable. For when the public truly realizes this, every man will be on guard against it, and when attacked by it he will not allow himself to be dragged into sickness and death, but will awake at once to his peril and his opportunity.

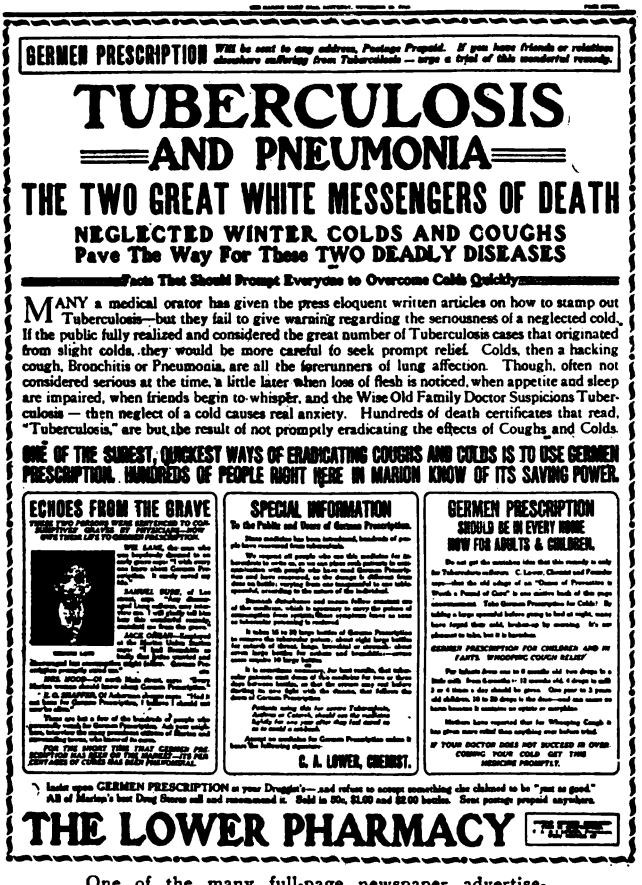
LOWER'S GERMEN PRESCRIPTION

ANOTHER FRAUDULENT CONSUMPTION CURE.

Marion, Ohio, has the unenviable distinction of being the home of one of the latest of the many cruel frauds that capitalize the credulity and the hopefulness of the consumptive. This is Lower's Germen Prescription, prepared by Lower's Pharmacy. The nostrum is said to be the "discovery" of C. A. Lower, one of the proprietors of the Lower Pharmacy, who emphasizes the fact in the newspaper advertisements that he is a "chemist." While as a pharmacist Lower disgraces an honorable profession, he utilizes the knowledge there learned to avoid technical violation of the federal Food and Drugs Act in putting out his swindling nostrum. The "pure food law" effectually prevents fakers of the Lower type from lying on the labels, but unfortunately its operations do not extend to the newspaper advertisements. As a result Lower can, and does, allow full play to his mendacity when describing his "consumption cure" in the newspapers. Of the many falsehoods told in describing this stuff we quote a few:

"The most Deadly Foe to the Great White Plague —Tuberculosis—Science Has Yet Produced."
"Its record is perfect."
"Germen Prescription is a Permanent Cure."
"A Genuine Cure for Tuberculosis."
"Its Record of Cures of Tuberculosis is Higher Than Any Other Known Remedy."

These excerpts from newspaper advertisements, which the Federal law does not control, make plain just how far Mr. Lower would go on the labels of his nostrum were they not subject to the healthy restraint of the Federal law. Of course there are testimonials. The absolute worthlessness of such testimony is exceeded only by the ease with which it may be obtained, as has been demonstrated time and again. Usually the JOURNAL waits for a year or two before publishing an article about a fraudulent consumption cure so that it may present to its readers the death



GERMEN PRESCRIPTION Will be sent to any address, Postage Prepaid. If you have friends or relatives elsewhere suffering from Tuberculosis — urge a trial of this wonderful remedy.

TUBERCULOSIS
AND PNEUMONIA
THE TWO GREAT WHITE MESSENGERS OF DEATH
NEGLECTED WINTER COLDS AND COUGHS
Pave The Way For These TWO DEADLY DISEASES
Facts That Should Prompt Everyone to Overcome Colds Quickly

MANY a medical orator has given the press eloquent written articles on how to stamp out Tuberculosis—but they fail to give warning regarding the seriousness of a neglected cold. If the public fully realized and considered the great number of Tuberculosis cases that originated from slight colds, they would be more careful to seek prompt relief. Colds, then a hacking cough, Bronchitis or Pneumonia, are all the forerunners of lung affection. Though, often not considered serious at the time, a little later when loss of flesh is noticed, when appetite and sleep are impaired, when friends begin to whisper, and the Wise Old Family Doctor Suspicions Tuberculosis — then neglect of a cold causes real anxiety. Hundreds of death certificates that read, "Tuberculosis," are but the result of not promptly eradicating the effects of Coughs and Colds.

ONE OF THE SURest, QUICKEST WAYS OF ERADICATING COUGHS AND COLDS IS TO USE GERMEN PRESCRIPTION. HUNDREDS OF PEOPLE RIGHT HERE IN MARION KNOW OF ITS SAVING POWER.

ECHOES FROM THE GRAVE

SPECIAL INFORMATION
To the Public and Users of Germen Prescription.

GERMEN PRESCRIPTION
SHOULD BE IN EVERY HOME
NOW FOR ADULTS & CHILDREN.

Insist upon GERMEN PRESCRIPTION at your Druggist's— and refuse to accept something else claimed to be "just as good." All of Marion's best Drug Stores sell and recommend it. Sold in 50c, $1.00 and $2.00 bottles. Send postage prepaid anywhere.

THE LOWER PHARMACY

One of the many full-page newspaper advertisements of Lower's fraudulent "consumption cure."

certificates of the individuals whose testimonials have been used. As Germen Prescription has been on the market but a comparatively short time, the inevitable has not yet occurred in those cases of true tuberculosis in which patients are relying on Lower's fraudulent nostrum for their recovery. In due time, however, photographic reproductions of the testimonials side by side with the death certificates of those giving them will be forthcoming.

According to Lower, "it takes from 15 to 30 large bottles of Germen Prescription to remove the tuberculosis poison." The "large" bottles cost the unfortunate victim $2 each. This probably explains why Mr. Lower can carry full-page newspaper advertisements.

A sealed original package of Lower's Germen Prescription was obtained for analytical purposes and subjected to examination in the Association's laboratory. The label on the bottle, in addition to declaring the presence of 5 per cent alcohol, gives what purports to be the composition of this nostrum in bastard Latin, thus:

"Herb Menthae peperitae.
"Herb Marrubium Vulgarae.
"Ex Balsanum Tolutonum.
"Herb Hydrastis Canadensis.
"Scillae Maratinia, Mentholis.
"Ex Virginianna Prunus.
"Ex Capsici Fastiagatum."

This formula reduced to English would read:

Peppermint.
Horehound.
Extract of Balsam of Tolu.
Golden Seal.
Squills.
Menthol.
Extract of wild cherry.
Cayenne pepper.

The quantities of the various constituents are not given, of course, except in the case of alcohol, which the Food and Drugs Act requires. The Association's chemists analyzed the preparation and reported:

Laboratory Report.

"Qualitative tests of Lower's Germen Prescription indicated the presence of sugar, menthol, capsicum and traces of alkaloids, probably hydrastin and berberin. Quantitative determinations indicated the presence of 2.93 per cent of alcohol by volume, 1.83 gm. of menthol and about 0.01 gm. of alkaloidal substance in each 100 c.c. Since the alcoholic content is but 2.93 per cent appreciable quantities of the balsam of tolu cannot be present. Since the recognition of small amounts of horehound, squills and wild cherry in complex mixtures is very difficult, no attempt was made to determine the presence of these substances other than by odor and taste. According to Herder (Arch. Pharm., 1906, ccxliv, 120) and to Astolfoni (Bull. Chim. Farm., 1904, xliii, 117) the alkaloids of hydrastis are found only in the rhizome and roots of the plant. According to this the preparation should not contain any alkaloids from hydrastis since the herb of this plant only is claimed to be present. The traces of alkaloid found appear to be a mixture of hydrastin and berberin, thus indicating that the rhizome and roots of hydrastin, rather than the herb, had probably been employed. Whether or not such drugs as horehound, balsam of tolu and wild cherry are present matters little since they are of so little therapeutic value. It is evident that whatever therapeutic value the preparation may possess is due largely to the menthol."

Evidently, therefore, this peppermint-horehound-cayenne-pepper-menthol mixture has but one drug present in sufficient quantities to have any therapeutic effect—menthol. It hardly requires medical knowledge to recognize the absolute fraudulence of claiming that this mixture will "cure" consumption. About the only effect that the continued use of Germen Prescription will have is that of deranging the digestion of the person taking it. This in itself shows the viciousness of the preparation, for it has been well said that the consumptive gets well on his stomach. The ability of the tuberculous sufferer to digest food is a necessity if he would successfully combat the inroads of the bacilli.

Summed up then, it may be said that Lower's Germen Prescription will shorten the life of every consumptive who depends on it for his recovery. The only beneficiaries of the sale of this worthless and harmful mixture are the Lower Pharmacy, and those newspapers that are willing to share the blood money thus obtained. Of all tainted dollars few are quite so dirty as those wrung by deceit and fraud from the unfortunate but ever-hopeful consumptive.

EFFECTIVE WORK WITH SMALL RESOURCES

BY HAROLD W. SLOCUM, SECRETARY TUBERCULOSIS COMMITTEE, ASSOCIATED CHARITIES OF MINNEAPOLIS.

Every anti-tuberculosis worker can think of plenty of activities he would push for the prevention of tuberculosis, provided he had a larger force and more money. The object of this paper is to suggest from the writer's experience in Minneapolis some important work that can be done with no office force and but little money.

One of our weaknesses in combating tuberculosis is that we base our activities too much on a number of general principles that do not fit specific local conditions. A tuberculosis worker should study the situation in his own city, and for this purpose the Health Department is his best ally.

In order to be able to study the local situation, the first important thing is to establish at the Health Department an adequate system of notification and registration. Many workers have complained that they were unable to do this because the physicians did not co-operate No doubt the physicians are often negligent, but on the other hand, physicians cannot be blamed for refusing to register their private cases unless they can see that it will accomplish some real benefit. It is pretty difficult for one to convince a physician of this benefit when one's own ideas on this head are rather hazy. Therefore, instead of putting in a system of registration because Dr. Biggs or

some one else says it is important, the worker should first make sure he knows just what he desires to accomplish with this system.

In Minneapolis the writer determined on six things that he wished the system to do:

(1) To guarantee that every sufferer is under some trained supervision.

(2) To guarantee that all of quarters upon the removal of patients are cleaned and fumigated to the satisfaction of the Health Department.

(3) That the greatest possible use is made of our sanatoria for the segregation of dangerous cases and the help of the most needy and worthy, also that discharged patients are visited regularly.

(4) The definite location of all houses and districts where tuberculosis has been or is prevalent in order to study those neighborhoods intensively as to general customs, environment, economic conditions, occupation, etc.

(5) To discover whether there is any consistent relation between wages and tuberculosis.

(6) To discover whether there are any kinds of employment or places of employment in Minneapolis where the percentage of tuberculosis among employees is high.

It is impossible for one person to carry all of these into practice in a large city, but one person can manufacture the machinery necessary to do this, show the necessity for it, and prove that with sufficient help it can be done.

Of course, it is only by experience that this system of registration will adapt itself to all its needs, but the writer feels that its foundation is right, for he has been guided by the systems in use in other cities. In this connection the report on registration published by the Department of Health of New York City cannot be too highly recommended. It was found to be a great help both in determining just what should be done and how to go about the work of accomplishing it. It is not necessary for anyone to go about this work in the dark, for many cities that have developed their registration beyond the experimental stage are glad to have others profit by their experience.

Educational work must be done constantly. It might seem that after numerous articles had been published in the papers, an immense amount of literature distributed, and a large exhibit held, that knowledge about tuberculosis had been pretty well disseminated. A little investigation, however, proves that this is not the fact. Before my directors adjourned for the summer months, I asked them for permission to use $100.00 for educational work during the summer. This request was granted. The plan I had in mind was to endeavor to reach people who probably never attended our large exhibit nor read our literature. For example, the busy mothers and other people whose work confined them to one section of the city. Fortunately, I knew of a tuberculosis exhibit that had been in the storehouse for some time and was able to secure the loan of it. It cost about $40.00 to pay the transportation of the exhibit to Minneapolis, adapt it to our needs and add a section of purely local information.

The exhibit was opened in the entrance of our City Hall and attracted a good deal of attention. Numerous inquiries indicated that people whose interest was stimulated by the exhibit would give careful attention to our literature on the subject. There was no money to buy literature with, but the Metropolitan Life Insurance Company supplied us with their excellent pamphlets entitled "The War on Consumption." Neither was there money to pay for an attendant at the exhibit and therefore a question box was made to fill in part the place of an attendant. After two weeks at the City Hall, permission was obtained from the Library Directors to place the exhibit in the various branches of the Public Library, thus making it possible for the exhibit to visit for a week practically every section of the city. Newspapers and cards in the store windows announced the opening of the exhibit at a branch library. Personal letters were written to all of the ministers in the vicinity asking them to co-operate.

There have been many requests for talks on the exhibit, and the writer hopes to be able to give a series of these in the public schools when the present itinerary is completed. The plan is to talk to the children on Health in the afternoon and more particularly on the prevention of tuberculosis to their parents in the evening.

Our committee had purchased a stereopticon lantern and during the winter the writer had given a number of illustrated talks at churches and working places. With the slides on hand and new ones especially prepared, a series of pictures was arranged for the purpose of emphasizing the essential facts in the prevention of tuberculosis without the necessity of a speaker. The pictures were divided under three general headings: "Extent of Tuberculosis," "Allies of Tuberculosis," and "Allies of Health."

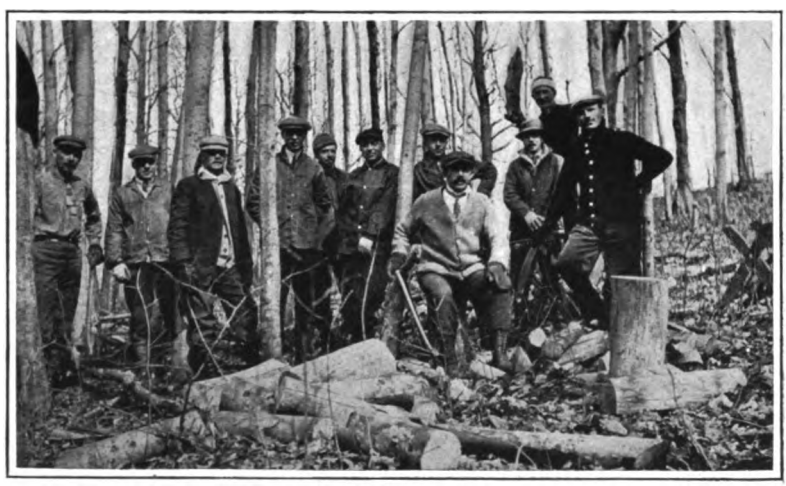
These pictures were shown on summer evenings in the various parks. Minneapolis has a great many parks and during the summer two bands give concerts every night. With the permission of the park authorities, wherever there was a concert the writer tied a screen up in a tree or on the side of a building; connected the lantern with the nearest electric light socket and immediately after the concert threw the first of the pictures on the screen. In this way at a very small expense suggestions in regard to health and the spread of tuberculosis were brought to the attention of thousands.

There is no cure-all for tuberculosis either in medicine or sociology; so local workers must not base all their activities on general propositions but be guided rather by general facts to study and solve their own problems. In discovering how to study them and how to solve them, advantage should be taken of the similar experiences of other workers in all parts of the country.

THE USE OF EXERCISE IN THE TREATMENT OF TUBERCULOSIS—A HISTORICAL SKETCH

BY CHARLES W. MILLS, M.D., ASSOCIATE PHYSICIAN, LOOMIS SANATORIUM, LOOMIS, N. Y.

To trace the historical development of an idea is always interesting. New ideas are really few. The seemingly new ideas are usually found on investigation to have had their inception years or centuries ago. Our modern ideas as to the treatment of tuberculosis will illustrate this. Though often heralded as new, they were in all essentials 2,400 years ago what they are today. I say essentials because the only surety that we can tie to in the treatment of tuberculosis is hygiene—fresh air, proper food, rest and exercise—and this same hygiene was advocated by the ancient Greeks.

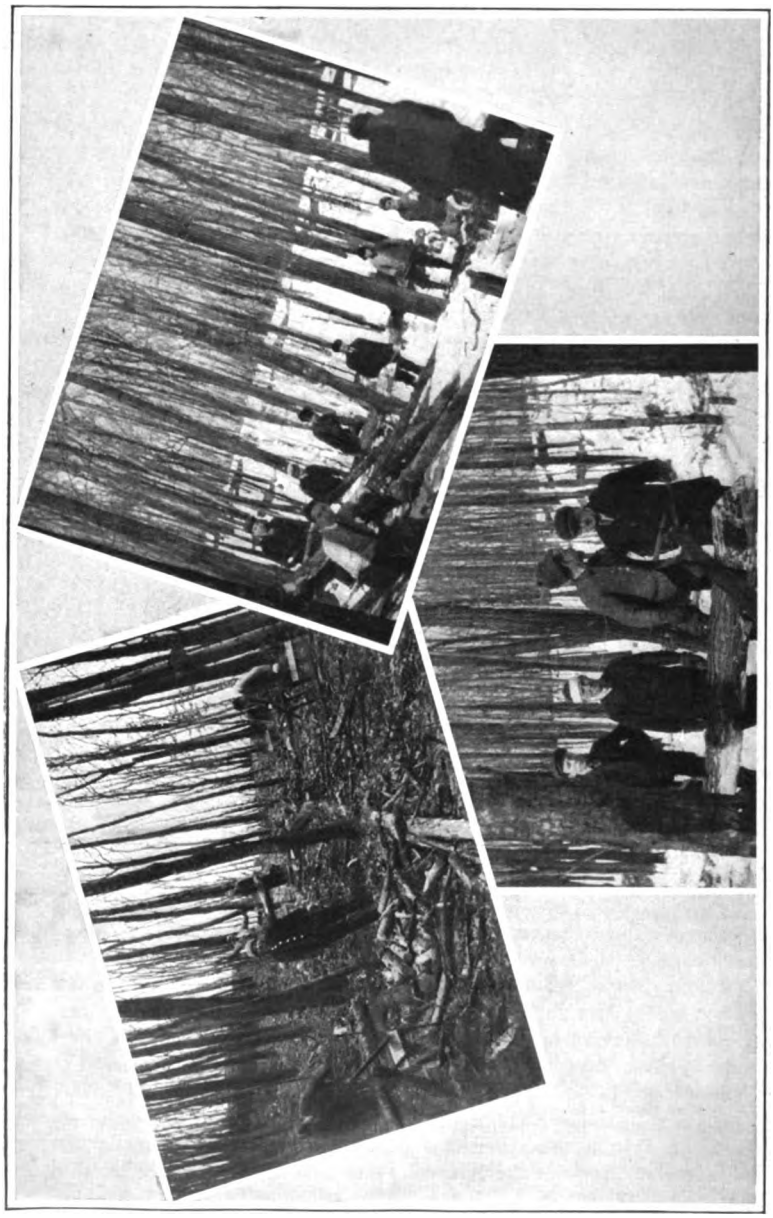


Wood-Chopping as Graduated Exercise at Loomis Sanatorium.

Ideas have a habit of moving in waves. The idea comes to a crest, is later swamped and forgotten, only to rise to its crest again. Sometimes this happens again and again, wave after wave appearing through the course of time. This has been the case with the idea of hygienic treatment of tuberculosis. Several times since its inception has the idea been submerged in a trough of medical superstition, wild theory, drug therapy or what not, but has always survived and come to crest once more.

It is my purpose to follow briefly through the ages the development of our present ideas in regard to the use of exercise in the treatment of tuberculosis, and in doing so it will be necessary to consider this subject in connection with the hygienic method of treatment in general, of which it is a part.

Our medical practice, as indeed most of our modern civilization, descends from the ancient Greeks. Hippocrates, called the Father of Medicine, and his immediate followers, who lived about 400 years before Christ, left a large number of writings in which the medical art and practice of the Greeks is laid before us. From these we learn that Hippocrates, who was in all his therapeutics an advocate of natural, common sense, practical methods such as he had found from observation rather than theory to be workable, treated his tuberculous patients by hygienic methods and believed the disease curable. In fact, it is very suggestive as to the value of the hygienic method that it is always accompanied by a belief in the curability of tuberculosis, while at periods when other methods have been used the disease has usually been regarded as incurable. As to exercise, Hippocrates advised that the patient walk if he felt bene-



SUPERVISED EXERCISE IS DESIRABLE.

fitted thereby; if not, to rest as much as possible; good hard-headed common sense, practice as you see.

The later physicians of ancient Greece and Rome were for the most part followers of the Hippocratic methods and we are led to believe from their writings that on the whole they continued to treat tuberculous patients by the rational methods of hygiene. Celsus, a Roman medical writer who lived from 25 B. C. to 45 A. D., lays much stress on sea voyages when possible, and on the question of exercise says, "If there has been no fever, or if the fever has left, the patient should begin moderate physical exercise, walking followed by gentle rubbing." Other famous physicians of the ancient world, such as Aretaeus and Galen, give very similar advice. Galen was in favor of sending his patients to the mountains; Aretaeus advised the drinking of milk; both ideas which have been revived in modern hygienic treatment.

After this crest of the wave came the deep trough of the Middle Ages. The high civilization of Greece and Rome was swamped by Teutonic and Celtic barbarism, and medicine with the other arts was in a sorry condition. Few clear medical records of this time have been left and it is impossible to tell just how tuberculosis was treated. It is probable that in common with other diseases it was supposed to be a visitation of the devil, to be treated by incantations, charms, pilgrimages to a saint's tomb, touching of holy relics, etc. We do know that scrofula or glandular tuberculosis was in those days named "King's Evil," from the belief that it could be cured by the touch of a king's hand.

After this veritable Slough of Despond it is refreshing to find rational treatment once more come to the surface in the hands of Thomas Sydenham, a seventeenth century English Puritan and one of Cromwell's captains of horse before he was a physician. Perhaps this former employment serves to explain his enthusiastic advocacy of horseback riding. Sydenham was a physician of very much the same type as the Greek Hippocrates, and has been called the modern Hippocrates. He rejected as much as possible theory and speculation and founded his treatment on the experience derived from close bedside observation. He was the first, of moderns at least, to advocate fresh air in the bedrooms of the sick. The use of exercise, especially horseback riding, in the treatment of tuberculosis found an ardent advocate in Sydenham. He says among other things, "Of all the remedies for phthisis, long or continued journeys on horseback bear the bell." "I am sure that if any physician had a remedy for the curing of phthisis of equal force with this of riding, he might easily get what wealth he pleased; in a word, I have put many upon this exercise, in order to be cured of consumption, and I can truly say that I have missed the cure of very few." He also advises that the patient "go into new places, for the change of air and diet do as considerably add to the cure as the exercise itself." That he did not restrict this treatment to favorable cases is shown in the following statement: "Riding has cured patients whom many medicines would have benefitted as much as so many words—and no more. This, too, not only in mere cases of cough and weakness, but after wasting night sweats and colliquative diarrhea have signified the approach of death." And finally he says, "Indeed, deadly as phthisis is (killing two-thirds of those who die of chronic diseases), it has a specific in riding as truly as ague has in bark (quinine), provided only that the journeys are long enough and the beds are well aired."

Of course such an extravagant use of exercise would not be thought of today, but this riding in the open air was undoubtedly so great an improvement over the methods in vogue before Sydenham that it seemed to him like a specific. We can hardly doubt his statement that many got well under it who would have been doomed under the old treatment, and his enthusiasm is therefore justified.

Sydenham's influence on English medicine was very great in this matter of the treatment of tuberculosis. Following him were many physicians who continued to use his methods, especially this use of horseback riding. On the whole, however, his views in this regard do not seem to have been adopted by the majority of practitioners. During the eighteenth and early part of the nineteenth centuries the treatment of tuberculosis was anything but hygienic. The patient was, during the winter months at least, kept confined in a warm house, was often bled to large amounts, and was dosed to saturation with whatever might happen to be the favorite drug of his physician. No wonder that, contrary to the belief of Sydenham, tuberculosis again came to be regarded as incurable.

But Sydenham's views were never really lost, and in the early part of the nineteenth century, especially in America, we find a considerable revival in their favor. These views are very well expressed in a book on "Consumption" in 1837, by Samuel G. Morton, a prominent Philadelphia physician. Although he did bleed his patients in some conditions, and used drugs more or less, his main emphasis was on hygienic measures. In the treatment of early cases he says: "The patient should take ample exercise in the open air, use a light but nutritious diet, and go, if practicable, without delay to another climate. If such a patient cannot go abroad, the best sub-

stitute will be found in horseback exercise, or driving in an open vehicle." As to advanced cases, "A sea voyage or a long journey has often done much for the patient. Even the simpler precautions of a well adapted diet and exercise in the open air will often protract life for a long period. Whereas, if the same patients had been kept in their chambers, and excluded from the ordinary sources of health and recreation, the term of life would have been much abridged."

In this most interesting book he cites many cases, some apparently in desperate condition, who got well under the continued employment of exercise in the open air.

He even used exercise in the treatment of hemorrhages. He describes one case as follows: "The depletory plan, by bleeding, etc., was carried as far as the circumstances allowed; but the hemorrhage recurred about every two weeks, and on some occasions he spit nearly a pint of blood at a time. I then advised travel. He went by the public conveyance to Cincinnati, and on his return rode the last four hundred miles on horseback. It is a remarkable fact that this gentleman never had the slightest recurrence of hemorrhage during this long journey, which occupied him two months."

Following Morton, almost all American writers on tuberculosis give attention to hygienic measures, and generally advocate exercise. Dr. Nathaniel Bowditch of Boston may especially be mentioned as an ardent advocate of outdoor exercise. He was himself afflicted with tuberculosis and on more than one occasion brought himself back to health by undertaking prolonged carriage drives through New England.

Such views gradually became prevalent among the medical profession, and displaced the old methods of confinement, bleeding and purgation. In fact they were pushed, as we now believe, altogether too far. It is not many years since patients, on the diagnosis of tuberculosis, were advised to go to the woods or the ranch and "rough it." The check to this extreme use of exercise came with the introduction of modern sanatorium treatment.

In 1859 Dr. Brehmer opened the first tuberculosis sanatorium at Görbersdorf in the province of Silesia, Germany. The sanatorium method is, of course, the fullest application of hygienic treatment. In regard to exercise Brehmer's work is important, as he was the first to make use of graduated exercise. He accomplished this by the use of paths on the sanatorium grounds laid out at different gradients. The patient at first took his walk on a level path or one of very easy grade. When he became accustomed to this, a steeper path was selected, and so on until he could climb difficult ascents. This principle of graduated exercise is an impotant one and has been made great use of since Brehmer's time. Before his time, although there must have been some rough graduations of exercise according to a patient's strength, there was apparently no deliberate attempt to increase the "dose" of exercise, if we may call it so, little by little. Sydenham and his followers up to Brehmer's time advised their patients to take exercise, as much as possible, up to the point of fatigue. This method of Brehmer's, then, put the use of exercise on a much more scientific standard and was an important basis for future work.

The work of Dr. Peter Dettweiler, a pupil of Brehmer's, who was the founder of Falkenstein Sanatorium in the Taunus Mountains, is also extremely important. Dettweiler first instituted the so-called "rest cure." He was the first to put his patients at rest, in bed or a reclining chair, in the open air and keep them there day in and day out through all sorts of weather. He believed that the fresh air and not the exercise was the important factor in the cures wrought by Sydenham's methods. His success with this method caused a considerable reaction against the use of exercise in the treatment of tuberculosis. The rest cure for all classes of patients is not at present pushed to the extreme that it was a few years ago, although there are still some physicians who believe they get better results by keeping all their patients at rest throughout the whole course of treatment.

This brings us down to the past few years and to the work of a man who has done a great deal to clear up the subject, Dr. Marcus Paterson, late of Frimley Sanatorium, England. Paterson greatly extended and elaborated Brehmer's system of graduated exercise, although working on an entirely different theory. Brehmer's theory was that the beneficial effects of exercise are due to a strengthening of the heart, while Paterson introduced the theory of "autoinoculation," meaning by this that as a result of exercise the patient vaccinates himself with a small dose of self-made tuberculin and that thus an immunity is produced. But after all, the theory of why exercise helps some patients is of little importance compared with the great fact that it does help them. Paterson had observed that some patients did well though continuing to do heavy work at their ordinary occupations. He cites the case of a navvy who had worked for forty hours without a rest, altering a water-main, and though he had considerable disease, was apparently none the worse for such arduous work. He continues: "It occurred to me that, if some consumptive persons under adverse circumstances, and without any medical guidance, could act thus without apparent injury, they ought under ideal conditions, and with the work carefully graduated in accordance with their physical state, to be able to undertake useful labor." He accordingly devised an elaborate scheme of graded exercise, there being successive grades of increasing severity all the way from absolute rest in bed, up to six hours' work a day with a pickaxe. Each patient after careful examination and observation was pushed through the successive grades, until he had reached the amount of exercise that seemed best to agree with him. Of course many patients could never be pushed

beyond the stage of easy labor, or short walks, or even beyond the rest in bed stage, but on the other hand a great many were able with benefit to their physical condition to undertake the heavy grades.

These ideas of Dr. Paterson's have been followed out in many sanatoria, although few have used as elaborate and rigid a scheme as his. In most of the state sanatoria in this country the method of graduated labor is in use at present and also in some of the private institutions. Very few, however, have found it possible to employ the extreme grades of work, such as six hours with a pickaxe, which Paterson has in some of his cases used.

I will mention more in detail the work at Loomis Sanatorium, with which I am most familiar. Under the direction of the physician in chief, Doctor Herbert M. King, a scheme of graduated exercise has been employed since 1908, the year when Dr. Paterson published his most important, and which requires considerable judgment and discrimination on his part. Great harm can be done by a use of exercise at the wrong time, and also harm, though of a more insidious nature, by a too long continuance of the rest cure. On this question I believe tuberculous patients need the advice of a physician more than on any other.

The experience at Loomis Sanatorium with the method of treatment has been very satisfactory. We feel that the proper use of exercise in suitable cases increases the patient's resistance to tuberculosis, puts him in better condition for resuming his work after discharge from treatment, and also incidentally makes the necessary period of treatment much less monotonous to him.

In conclusion, then, what would seem to be the most logical present attitude on this question? We have seen Sydenham, Morton, Brehmer, Paterson and their followers achiev-

Gardening is Easily Graded and Supervised.

description of the method. The patient on admission to the sanatorium is placed on the rest cure for a period of observation. As soon as his condition warrants it, he is started on a few minutes' walk, usually taken twice a day. If improvement continues, the walks are gradually increased. When at least two hours walking a day can be tolerated, more advanced grades of exercise are prescribed. In the summer this has been golf playing, which can be graded very well and lends itself readily to such a scheme, work in the garden, tending lawns, road building, etc. In the winter a forestry squad is at work chopping, sawing, and piling wood. Horseback riding has also been used in a few cases. The accompanying illustrations will give an idea of the character of these various kinds of exercise.

It is beyond the scope of this article to give the grounds of selection of patients for these grades of exercise or the indications for increase or decrease in the amount. This is a matter in which the rôle of the physician is

ing numerous cures by the use of outdoor exercise. We have also seen Dettweiler and his followers achieving as great results by the use of outdoor rest. We cannot doubt the authenticated statements of both these opposite schools. It must be then that neither side has a monopoly of the truth, but that both methods are valuable, and that some patients do better on one and some on the other. Neither method should be used exclusively, but it should be the aim of the physician to endeavor to determine with each individual patient by which method or by what combination of the two methods he can get the best result in that particular case.

And after all is said, although our modern methods are more elaborate, and our modern knowledge more complete, and therefore, as we believe, our results must be better, yet in principle we have returned to the advice of that wonderful old Hippocrates 2,400 years ago—exercise if the patient feels benefitted thereby; if not, rest.

Journal of the Outdoor Life

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The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

DOGS vs. MEN

AT a recent meeting of the Board of Supervisors of Steuben County (New York) a resolution was introduced to appropriate $1,000 for the purchase of a site of twenty acres for a county tuberculosis hospital. With very little discussion this resolution was promptly laid on the table indefinitely by a vote of twenty-two to fifteen.

At the same meeting the Board unanimously voted $2,300 for a dog quarantine because of a so-called mad dog scare. In other words, they were unwilling to appropriate a very small sum to make a beginning in the fight against tuberculosis, but they readily appropriated a considerably larger sum to prevent rabies. This attitude looks as if it were suggested by fear and not by humanitarian impulse or sound business judgment.

The JOURNAL'S correspondent has looked up the records of Steuben County for the last five years in an effort to determine whether there was any ground for the action taken by the Board of Supervisors. After a considerable amount of research he finds that there were 288 deaths from tuberculosis in this county for the years 1909-13. With a local tuberculosis hospital a considerable number of these might now be alive and active producers of wealth in the county. According to the records in the State Veterinary Department, on the other hand, there have been no deaths from rabies during the five years, and less than a score of cases of the disease have been reported during that period. In fact, the total number of deaths from rabies during the last five years in the entire registration area of the United States was only 371, or very little more than the number of deaths from tuberculosis in this one rural county of New York State.

Rabies is a terrible disease and no one would minimize any sane effort to prevent it. Tuberculosis, however, is equally terrible and may be as readily prevented. Dogs are valuable animals and good companions in their proper

places, but it hardly seems probable that any supervisor in Steuben County or anywhere else, in his sober senses, would say that all the dogs in his territory were equal to one human being in economic value to the community, to say nothing of humanitarian values.

The old, oft-quoted illustration of the farmer who had a sick hog and was able to obtain state and federal aid to cure the animal of tuberculosis, while he could get no treatment for his tuberculous child, is again illustrated by the inconsistent action of this county governing board.

NATIONAL ASSOCIATION DATES AND PLANS

At a meeting of the Board of Directors of The National Association for the Study and Prevention of Tuberculosis, held on October 17th, the dates for the annual meeting of the association at Seattle in 1915 were definitely settled for June 14th, 15th and 16th. There will be an evening session on Monday, June 14th, and the conference will close on the afternoon of June 16th, thus allowing plenty of time for those who wish to go to San Francisco to the meeting of the American Medical Association, which opens on June 21st.

The chairmen of the various sections were also selected and are as follows: Advisory Council, Dr. Eugene R. Kelley, Seattle; Clinical Section, Dr. W. Jarvis Barlow, Los Angeles; Pathological Section, Dr. Frederick P. Gay, Berkeley, Cal.; Sociological Section, Mr. George J. Nelbach, New York. Dr. George M. Kober, Washington, will preside at the meeting.

To fill three vacancies on the Board of Directors, the following persons were appointed, subject to election in due form at the next annual meeting of the association: Dr. Ethan A. Gray, Chicago; Mrs. O. B. Colquitt, Austin, Texas, and Seymour H. Stone, Boston. Dr. Vincent Y. Bowditch, of Boston, was elected a member of the Executive Committee, succeeding Dr. Charles J. Hatfield.

Plans were approved for an informal conference to be held at Chicago on June 8th and 9th, preceding the Seattle meeting. Delegates and members of the association who will have to pass through Chicago are especially urged to attend. Sufficient time will be allowed to reach Seattle before the opening of the meeting there.

THE WORKER'S CORNER

The aim of the Corner will be to answer as briefly and concisely as possible inquiries from anti-tuberculosis workers, such as secretaries of associations, visiting nurses, physicians in charge of sanatoria or dispensaries, teachers, ministers and others, relating to the various phases of the anti-tuberculosis campaign. This department will not be for questions and answers only. It will be a common meeting-place for the discussion of common difficulties by all anti-tuberculosis workers, either through the medium of a brief signed note, a question, or a communication to the editor.

Using the Boy Scouts

To the Editor:

It occurred to me that something about our recent anti-spitting campaign might be of interest for the JOURNAL OF THE OUTDOOR LIFE.

The two letters to Scoutmasters and assistants, to Boy Scouts given below, show the main steps in the anti-spitting campaign, which the Maryland Association for the Prevention and Relief of Tuberculosis, with the co-operation of the Boy Scouts, carried on last summer.

In this campaign we were trying to appeal to the "spitter's" common sense, rather than to his aesthetic side, and so far as possible to carry our message without offending his sensibilities or intruding upon his self-respect. We feel that an appeal based on a health-prevention and sanitary basis will prove more effective in the end than an attempt to shame the offender.

As much of the effect of our appeal lies in our ability to operate on an unsuspecting public, for a few days at least, we have considered it advisable, up to now, to withhold mention of our plans. It has been several days since every registered Boy Scout in the state has received a supply of the folders with instructions, so that any space you can give to the campaign from this date on until after the first of August, will be a decided boost to the cause, both in stimulating the Scouts to a more effective distribution of the folders, and in educating the public as to their purpose.

The following letters are self-explanatory:

To Scoutmasters and Assistants:

We ask your co-operation and that of your Troop for the Anti-Spitting Campaign we plan to carry on throughout Maryland, the last week in this month. The object of the campaign is to lessen the dangers of infection from communicable diseases, especially from tuberculosis, by discouraging promiscuous spitting in public places.

The success of the campaign depends to a very large extent on the proper distribution of a single small folder devised for the purpose. From the point of view of ideals and training, the Boy Scouts furnish the logical and most effective means for making this distribution. We enclose a copy of the folder in question, and beg to advise that our plan of action has been submitted to Mr. H. Laurance Eddy, your Scout Commissioner, and to Dr. C. Hampson Jones, Asst. Health Commissioner of Baltimore, and has their full endorsement and support.

The idea is not to have the Scouts give up any special time to the campaign, but simply carry around with them a small supply of these folders continually for a period of a week. When in the course of their work or play they see any man, woman or child, spitting anywhere in a public place, they are to step up quietly and hand the offender one of the folders, saying, "From the Boy Scouts," or some such identifying phrase.

If you have any objections to the boys of your Troop taking part in the campaign, will you not kindly state them at once, as it is essential that we get things under way not later than the 21st of the montth; otherwise, we shall plan to send every registered Scout in Maryland twenty-five (25) of the folders with instructions for distribution and an appeal for their co-operation, on or about the above mentioned date.

As much of the success of this campaign will lie in our ability to work on an unsuspecting public, for several days at least, we respectfully request that you make no mention of the folder, or the contents of this letter to anyone besides he boys of your Troop, and in turn see that they hold the information confidential.

Hoping that we may count upon your personal co-operation in this good work, I am,

Sincerely yours,
ROBT. C. POWELL,
Executive Secretary.

To Boy Scouts of Maryland.

Dear Scout:

We are calling upon every registered Boy Scout in the state to help us impress upon the people of Maryland the fact that spitting in public places or about the home is a great menace to health, and that it is largely responsible for the transfer of communicable diseases, especially tuberculosis.

Our plan of campaign has been submitted to Mr. H. Laurance Eddy, your Scout Commissioner, and to Dr. C. Hampson

Jones, Asst. Health Commissioner of Baltimore, and has their full endorsement and support. Your Scoutmaster and his assistant have also been advised as to the details of the campaign.

We do not want you to give up any special time to this Anti-Spitting Campaign. What we want you to do can be done without appreciable effort and without interfering with your work or vacation. We simply request that you co-operate with us to the following extent:

1. Read carefully one of the enclosed folders and see that every member of your family does likewise.
2. Put the twenty-five folders in your pocket on Friday morning, the 24th, and whenever you see any man, woman or child spit in the street, in a building, or on a car or boat, between then and August first, just quietly hand the offender one of the folders and proceed on your way.
3. Not later than Monday night, July 27th, mail to this office a brief record of any out-of-the-ordinary incidents bearing on your distribution of the folders up to this time, and repeat this at the end of the campaign to cover the time intervened. See what a good reporter you can be. Make your reports brief and write plainly. Postage used for these reports will be refunded.

If you need more folders or any further information at any time, write, phone or call at this office, and we shall be glad to give you all the assistance possible. You will find this new game of "Spot the Spitter" one of the most interesting games you have ever played; at the same time you will have the satisfaction of knowing that you are helping in the good work of health-prevention, and that you are bringing credit to your troop and organization.

Remember, that every registered Boy Scout in Maryland is receiving this letter, and folders at this time. Be among the first to get your folders properly distributed and your reports into this office.

Good luck to you!

Sincerely yours,

ROBT. C. POWELL,
Executive Secretary.

I might add that 1,400 registered Boy Scouts distributed 42,000 of these folders in accordance with instructions, through the state during the last week in July. Even though we particularly withheld mention of the campaign from the press until it was well under way in order to get our appeal more directly to the people, we nevertheless did get a little press publicity. One Scout caught a policeman spitting in the street and called his attention to the City Ordinance mentioned in the folder; the boy reported that the offender moved away sheepishly, whatever kind of a movement that may be. Another Scout nearly got into a fight with an Americanized Italian on a street-car, who did not quite get the thought.

A TUBERCULOSIS QUESTION BOX

Suitable questions will be answered on this page each month. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," JOURNAL OF THE OUTDOOR LIFE, 289 Fourth Avenue, New York City. Please write only on one side of paper. Questions received before the 10th of the month will be answered the following month.

TO THE EDITOR:

Having a series of small hemorrhages, I was given five injections of horse serum. A few days later temperature developed which ran from 101 degrees to 104 degrees for ten days, culminating in a heavy rash over the body, which passed off two days after appearance, leaving temperature about normal.

1. What do you think of the use of horse serum in hemorrhage cases?

2. Could its use, or the effects of its use, have caused the high temperature and eruption? Denver.

The symptoms you describe are typical of so-called serum sickness which occur in a certain proportion eight cases ten to twelve days after the injection of the horse serum. In certain cases which are sensitive occasionally the symptoms are very severe and alarming, but as a rule they pass off without any harm. Horse serum used in hemorrhages of various sorts appears to be of some value. It is probably of less value in hemorrhages from the lungs than from some other parts, but it is, however, used by a great many competent authorities.

TO THE EDITOR:

I am an arrested case of tuberculosis and my general health is fine, although I have had temperature of 99 at 3 P. M. quite a good deal since the hot weather. I never cough any and always keep my mouth closed when I sneeze. I expectorate a little nearly every morning just as I get up, but am very careful with it. I would like to know if there is any danger for me to handle the children. Also is there danger for my family for me to cook, milk the cow, get ice from the refrigerator. Is it necessary for me to have a disinfectant to wash my hands in?

A Subscriber, Arkansas.

It is very possible that your case is in no way a source of danger to your family in performing the duties you mention. It is important, however, that your sputum should be examined several times, and if it is positive for tubercle bacilli the most scrupulous care should be taken in washing the hands and also in that case it would be undesirable for you to milk cows or to prepare food which is not cooked.

To the Editor:

1. Which has most nourishment, a tablespoon of butter, olive oil, cod liver oil, or petroleum?
2. Which is most fattening for a tuberculous patient?
3. Would olive oil, well tolerated, be better than cod liver oil, poorly tolerated?
4. Is creosote used at all now? Would it diminish pus suppuration?

R. B. L.

1. All of these articles are almost pure oil or fat and consequently have about the same food value.
2. This depends largely upon the individual person, the palatability and the way in which one or the other affects the digestion, some people being able to take one much better than the others.
3. As a rule olive oil never disturbs the digestion, but cod liver oil sometimes does. It is a wise rule in tuberculosis never to continue taking anything that upsets the digestion.
4. Creosote is very little used now in the treatment of tuberculosis by the best authorities. It is sometimes helpful in cases with a good deal of bronchitis, but it probably has no direct effect upon the disease and frequently upsets the digestion.

To the Editor:

1. Have you any information at hand concerning the curing powers of an "Eckman's Alterative" in pulmonary tuberculosis?
2. Do you consider electric vibrators a help to a person with T. B.?

O. W.

1. See December, 1913, number of this Journal.
2. No.

To the Editor:

Kindly explain the action of autogenous vaccine in the treatment of pulmonary tuberculosis. Have the results so far justified its use? Could serious harm result from an overdose of autogenous vaccine?

"Interested Subscriber."

Autogenous vaccines are made by preparing cultures from the sputum of tuberculous patients and then separating the various germs found and killing them. They are then given in small, carefully regulated doses and are used particularly in the so-called cases of secondary infection, that is, in cases where other germs in addition to the tubercle bacilli are at work. Reactions not infrequently occur even in small doses, and some people are quite sensitive to such vaccines. These reactions are not at all serious excepting in rare instances.

To the Editor:

Will you kindly reply to the following in Journal. Thanking you in anticipation.

1. What is the usual variation of temperature in a normal person attending to his usual occupation, from rising to retiring?
2. What would it be if same person were at rest?
3. What does afternoon or evening rest in temperature indicate, or rather, what is its significance?
4. Where can I learn about so-called onion treatment?
5. What literature is there on "chemotherapy"? Where can it be procured?

T. E.

1 and 2. There is usually a daily variation of temperature from one-half to one degree in a normal individual. This varies greatly, however, and depends a good deal upon the amount of physical activity. If a person is at rest, the variation is slight, probably on an average of not more than one-half of one degree between morning and evening.

3. There are so many possible causes of rise of temperature either in the afternoon or evening that we could not attempt to answer this question. In general, however, if the rise is more than one degree it denotes some abnormal condition, usually some sort of infection.

4. We would refer you to the answer in the question box in the issue of the Journal for May, 1914, page 150.

5. The whole realm of chemotherapy is still in the experimental stage. Various experiments have been attempted for treating various diseases and other conditions, but the subject as a whole is not in such form that it can be presented to the general public. Of course, the most brilliant results thus far obtained have been in Salvarsan for the treatment of syphilis.

To the Editor:

Have the kindness to answer the following questions:

1. Under what circumstances are T. B. patients allowed to marry?
2. Is marriage between two T. B. patients ever advisable?
3. What is the effect of bearing children on T. B. women?

Saranac Lake, N. Y.

1 and 2. Marriage between tuberculous patients is in general most undesirable. Under exceptional circumstances this may be allowed, but physicians usually do so with great reluctance. The only circumstances in which it could be said to be perfectly justifiable would be where both patients had been appar-

ently well and free from all symptoms for at least three or four years.

3. Pregnancy, childbirth and lactation are a great strain upon the physical resources of any woman. When a woman has tuberculosis this strain is very apt to produce severe effects which are frequently disastrous. The likelihood of these bad effects of course depends upon the character of the case, the amount of disease and the length of time since the disease has been active. There are of course exceptions to the general rule, but physicians generally watch cases of tuberculosis in which their disease has not been well arrested for a number of years with great concern during the course of pregnancy.

NOTES AND NEWS

Mississippi Valley Conference

With true Western spirit and enterprise, more than a hundred representatives of anti-tuberculosis organizations from nearly a score of Mississippi Valley states, met in St. Louis for the first Mississippi Valley Conference on Tuberculosis on October 6, 7, and 8. Every one present at the Conference declared that it was the most practical and helpful gathering of its kind that they had ever attended.

There were very few formal papers, and practically all of the discussions were informal, with ample opportunity for brief and pointed criticism from the floor by all who were present. No one apparently seemed afraid to "speak out in meeting." The experiences of workers in all parts of this section were freely exchanged, with the result that new enthusiasm and new ideas were given to every one.

The Conference voted to hold its next meeting at Indianapolis. Next year the organization of the Conference will be carried on jointly under the direction of the National Association for the Study and Prevention of Tuberculosis, with a council of five, which was elected by the Conference. The members of the council are Mr. A. W. Jones, Jr., chairman, St. Louis, Mo.; Mr. Walter D. Thurber, secretary, Indianapolis, Ind.; Mrs. K. R. J. Edholm, Omaha, Neb.; Miss Chloe Jackson, Frankfort, Ky., and Dr. R. H. Bishop, Jr., Cleveland, Ohio.

North Atlantic Conference

The second of a series of Sectional Conferences being organized this fall under the auspices of the National Association for the Study and Prevention of Tuberculosis was held at Philadelphia on October 16. There was a representative attendance of more than a hundred from each one of the several states embraced by the Conference—New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia and the District of Columbia. The discussions were practical and for the most part related the experiences of the several workers who had specialized in the points under consideration.

The morning session on Red Cross Seals was particularly helpful, so much so that the National Association has decided to publish in the form of a special pamphlet the papers presented at this session under the following heads: Selling Seals by Mail; The Use of School Children; Publicity and Advertising; Booths as Aids in the Sale; and Personal Work and Individual Solicitation.

The afternoon session on "Adequate Care of the Tuberculous" provoked a great deal of discussion. This entire topic is particularly timely in Pennsylvania, where the policy of the State Department of Health is apparently not inclined toward the establishment of local hospitals.

At the evening session there was a large attendance, and the three subjects discussed on "The Home Care of the Tuberculous" were presented in a manner that was very helpful to all who were present.

Segregation in Minnesota

The United States Public Health Reports for August 7th contain an article on "Tuberculosis Control in Minnesota," in which it is stated that at a recent meeting of the Minnesota State Board of Health, the following resolution was adopted.

"Whereas tuberculosis is now recognized as a communicable disease: Therefore be it

RESOLVED, That a case of open tuberculosis must be isolated either in a sanatorium or at home.

RESOLVED, That all early cases shall be so cared for as to prevent the disease reaching a stage that will become dangerous to others, if possible."

This resolution is in line with the law passed at the last session of the Minnesota Legislature requiring compulsory segregation of dangerous cases of tuberculosis.

The Evolution of the Open Air Treatment

There is an interesting note in the British Journal of Tuberculosis on the "Evolution of the Open Air Treatment." A letter is quoted from the Crown Princess of Prussia (afterwards the Empress Fredrick) to Florence Nightingale, dated September 29, 1866. The Princess writes:

"As you are such an advocate for fresh air, I cannot refrain from telling you what I have myself seen in confirmation of your opinion on the subject. In a small well-kept hospital, where wounded soldiers had been taken care of for some time, the wounds in several cases did not seem to improve; the gereral state of health of the patients did not show any progress. They

were feverish, and the appearance of the wounds was that of the beginning of mortification. In the garden of the hospital there was a shed or summer-house of rough boards with a wooden roof. The little building was quite open in front, and on the other two sides closed up with boards, but with an aperture of two feet all the way under the roof, so that it was like being out of doors. Six patients were moved down to this shed, sorely against their will, as they were afraid of catching cold. The very next day they were better; the fever left them, the condition of the wounds became healthy; they enjoyed their summer-house in spite of two storms that knocked down the tables, and all quickly recovered. I had seen them upstairs, and saw them every day in the garden. The difference was incredible."

Tuberculosis in Massachusetts Industries

Beginning with the July number, the Journal of the Massachusetts State Sanatoria (Rutland) will run a series of articles on tuberculosis in the various industries of that state. The first article on metal molding, gives an account of the manner in which workers in this particular industry are especially subjective to risk from tuberculosis owing to the processes involved. The August number deals with the cotton and other textile industries.

Summer Preventorium at Ithaca

Through the generosity of Dr. and Mrs. Eugene Baker, six acres of wooded land on the border of a lake have been loaned for the summer to the Cayuga Preventorium, Ithaca (N. Y.), and a preventorium for children will be erected by means of tent and portable buildings. By the Fall it is expected that a permanent site will have been selected and buildings for a year-around preventorium erected.

Site in Country Chosen

The discussion relative to the site for the new Hennepin county sanatorium, Minneapolis (Minn.), has been closed in favor of the country location, consisting of a tract of twenty-five acres. The faculty of the medical college of the university made a strong plea to have the sanatorium a part of the university buildings within the city's limits, where it would have afforded an opportunity for students to study cases and become more familiar with tuberculosis diagnosis. The sanatorium will be erected this summer.

Air and Tuberculosis.

The Smithsonian Institution has just issued a treatise on "Atmospheric Air and Its Relation to Tuberculosis," by Dr. Guy Hinsdale, as one of the prize essays on that subject presented in connection with the Washington Tuberculosis Congress. The treatise covers a good part of the United States and several foreign localities. The book, including 196 pages text and 93 plates of illustrations, forms publication 2254 of the Smithsonian miscellaneous collections. It is not a public document and is distributed free only to libraries and specialists. Others may purchase it for 80 cents.

The author does not claim that there is any specific climate for tuberculosis, but feels that the long search for such climate which has lasted for nearly 2,000 years, has come to an end with the recent studies of climate change and the relation of climates to individual cases. He believes, with other physicians, that climate may be utilized as an adjunct of great value for carrying out the hygienic, dietetic treatment of all forms of tuberculosis and of many other diseases, and that some climates have a more positive influence in hastening cure than others. Of first importance is an abundance of bacteriologically and chemically pure air, which is available only outside the cities and away from dwellings. The ideal air is available only on the ocean and at the high altitudes, but it can be approximated by living out of doors.

Sunshine, next to pure air, is held to be the most valuable adjunct of nature for the cure of tuberculosis. Although cures have been made in cloudy regions, sunshine seems to give moral help and other things being equal, is much preferred.

He considers temperature and humidity together; for early stages treatment requires a dry climate and a comfortable temperature. Some localities offer better results in the cold months when the lakes and ponds are frozen and covered with snow which insures dry air, as in the Adirondack region. Florida and South Carolina are more suitable in the winter months when the air is dry and comfortable. Arizona and New Mexico are available only in the winter, except at elevations from 5,000 to 7,000 feet, where the summer heat is not oppressive. Many places, however, offer just as good results in summer as in winter, among them the southern California resorts and others well inland.

One thing to be avoided is a climate in which the humidity varies greatly, as, from a warm, dry interior air to a damp exterior air; this is as bad as the changes often found in altitudes varying several thousand feet Individual cases vary, one thriving in a climate with a much greater humidity than others could stand. With a relatively low humidity and a moderately low temperature, the general effect is tonic and beneficial to conditions where the respiratory mucous membrane is effected, but with a very low temperature the result is irritating.

The treatise includes much information concerning the value of forests, the influence of the sea, compressed and rarefied air, cold, altitude, humidity and ventilation, as well as the good results from outdoor exercise, fresh air schools, accessories to fresh air treatment, and other points of professional and general

interest. In conclusion Dr. Hinsdale makes the following statement:

"Probably the best combination is a low humidity and a moderately cool temperaturel the average tuberculosis patient makes his best gains after August 1, and in subsequent cold, dry weather when such conditions prevail. But of course there are exceptions and some do better with a high relative humidity and a warm temperature; these are not numerous and probably include more of the patients in later stages.

"The old idea about equability of temperature, at least between the temperature of midday and midnight, is not of great importance; all mountainous stations show great variation in this respect. Some variability tends to stimulate the vital activities, but in older people and those who are feeble great variability is a disadvantage.

"As far as altitude is concerned it probably has not, *per se*, any great influence; certainly to my mind not so much as we used to think. However, altitude is incidentally associated with mountain life or life on the plains, with more sun, less moisture and scattered population.

"We should not forget that surgical tuberculosis is always favorably influenced by a seashore residence suitably chosen. I never shall forget the wonderful impression made on visiting the Sea Breeze Hospital for Tuberculous Children on Long Island, N. Y. Constant outdoor life in all weather works miraculous cures after the most formidable operations for bone tuberculosis and in many cases renders them wholly unnecessary in patients whose physical condition on admission was most unpromising. All the great French and Italian sanatoria for tuberculosis children are located on the seashore."

Cost of Care in North Carolina

In the United States Public Health Reports for September 18th, Dr. Thompson Frazer, who has been making a survey of the tuberculosis problem in North Carolina, contributes an interesting summary of his findings under the heading "The Financial Aspect of the Sick Leaving Home in Search of a Beneficial Climate."

After dealing with the problem in general he says in part:

"The cost of room and board varies within wide limits. From the observations I have made at Asheville board of fair quality with room costs from $10 to $12 a week at the houses which are licensed to take tuberculosis cases. The price depends to some extent on the location of the rooms, the more desirable ones on the first and second floors adjacent to baths and porches costing from $10 to $12 up; less desirable rooms may be had for $8. The location of the room is often of great importance as the trip up and downstairs, if the room is on the third floor, may be more than the patient should undertake. When confined to bed or to the room many of the boarding houses referred to serve trays in the rooms free of charge. Milk is furnished free with meals. Some houses also furnish free of

charge a glass of milk and an egg at 11 and 4; others charge extra for these 'diets.' If these are prescribed it would add approximately a dollar a week to the board. Milk costs 10 cents a quart; eggs can usually be had for from 30 or 40 cents a dozen.

"The cost to the patient for a period of 10 months or 43 weeks, at $8, $10, and $12 a week, would be $344, $430, and $516, respectively, for room and board. Allowing $100 for incidentals and $200 for physicians' services, we should have $644, $730 and $816, respectively, not including extras, such as reclining chair, milk, eggs, and other items noted. A minimum of $700, therefore, exclusive of car fare, would be a more just estimate of the expense for the rather arbitrary period of 10 months."

Healthseeker's Bureau at Denver

Under the direction of the Denver Visiting Nurse Association, a healthseeker's Bureau has been formed with Mr. A. H. Ortmeyer in charge. The bureau will act as a central clearing house in all matters pertaining to proper supervision of tuberculosis cases, and will seek to bring the newcomer in touch with the most advanced medical and nursing supervision available in the city.

"The majority of health seekers are not without some funds when they arrive in Colorado," says Mr. Ortmeyer. "Our purpose is to afford an agency that will secure them proper care an attention immediately upon their arrival here. It has been my good fortune to assist a goodly number of newcomers on the road to recovery, and I would like to meet personally every healthseeker upon his arrival here. The new bureau is planned to do such work in a more consistent, organized way."

Already the bureau has been successful in serving a goodly number of patients. The address is 535 Temple Court, Denver. Tuberculosis patients who plan to go to Colorado will do well to get in touch with Mr. Ortmeyer both before going and on arrival in that state.

Dr. Coon Goes to Chicago

Dr. J. W. Coon, Superintendent of the Wisconsin State Sanatorium, has been selected as the Medical Director of the new Chicago Municipal Tuberculosis Sanitarium. Dr. Coon will enter upon his duties at once. Mr. Frank E. Wing will continue as the Executive Officer of the Sanatorium Board with office at 105 W. Monroe St. Dr. Theodore B. Sachs is the chairman of the board.

The sanatorium is practically complete ready for the furnishing, and will be formally opened in the near future. It will accomodate 850 patients in all stages of the disease. A detailed description of the buildings will be given in a later number of the Journal.

Personals

Dr. Edgar R. Van der Slice, late of the Mont Alto (Pa.) State Sanatorium, has succeeded Dr. Nellie C. Dieffenbaugh as Superintendent of the Nebraska State Sanatorium at Kearny.

Miss Ellen N. La Motte of Baltimore sailed on October 24th for France, where she will serve as a nurse at the front under the direction of the French War Office.

Dr. Charles P. Frischbier of Brooklyn (N. Y.) has been appointed Superintendent of the new Saratoga (N. Y.) County Tuberculosis Hospital. Dr. Frischbier was selected as the result of a civil service examination.

Dr. H. S. Goodall, who for 10 years has been the Superintendent of Stony Wold Sanatorium at Lake Kushaqua (N. Y.) has recently resigned. Dr. Goodall is undecided as to his future plans.

Dr. Mary C. Campbell, who is known to many of the readers of the Journal as head nurse of the Adirondack Cottage Sanatorium, has recently severed her connection with that institution.

Dr. M. E. Leary of Rochester, Superintendent of the Iola Sanatorium, was recently elected president of the New York State Sanitary Officers Association.

Dr. M. P. Ravenel, President of the Wisconsin Anti-Tuberculosis Association and head of the hygienic laboratory at the University of Wisconsin, will leave Wisconsin in the near future to take up similar work with the University of Missouri at Columbia.

Newspaper dispatches of Montreal recently stated that Dr. George J. Adami, one of the best known authorities in Canada on tuberculosis, had enlisted as a private in a regiment being recruited at McGill University for service in Europe. Dr. Adami is a professor at the University.

Colored Tuberculosis Hospital Opened

After more than two years of incessant labor, a little group of colored men and women in Wilson, North Carolina, headed by Dr. F. S. Hargrave and Prof. Reid, saw the realization of their dream on September 22nd in the opening and dedication of the administration building of the Wilson Hospital and Tubercular Home. This is the first and only private hospital for tuberculosis negroes in the entire United States. The funds for its erection and maintenance were collected entirely by the colored people themselves, a fact which is also unique.

The hospital will have accommodations for about 20 patients and will be expanded from time to time as funds will permit.

Ohio's Supervising Nurse

Miss Helena R. Stewart, R. N., of New York City, entered upon her duties as supervising nurse on the staff of the Ohio State Board of Health, October 5th.

Miss Stewart's work will consist of supervision of the various local public health nurses in the state who are approved by the State

Examination for Public Health Service Surgeons

The Boards of Commissioned Medical Officers of the United States Public Health Service will meet at Washington, Boston, New York, Chicago, St. Louis, New Orleans and San Francisco on October 19th for the purpose of examining candidates for admission to the grade of assistant surgeon in the Public Health Service. Candidates must be between 23 and 32 years of age, graduates of a reputable medical college, not less than 5 feet, 4 inches, nor more than 6 feet, 2 inches in height. In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify them for services in any climate and that they will serve wherever assigned to duty. The examinations are chiefly in writing and begin with a short autobiography of the candidate. Assistant surgeons receive $2,000 and from this the salary is advanced to $4,000 a year. The tenure of office is permanent. For invitation to appear before the Board of Examiners, address Surgeon General, Public Health Service, Washington, D. C.

Educational Methods in Mississippi

Mississippi, under the direction of the Anti-Tuberculosis Campaign Committee of that State, is carrying on an interesting educational campaign with the funds derived from Red Cross Seals. Through the Health Committee of the Women's Clubs and through other organizations a series of unique posters and cards are being distributed. One poster, printed in red (size 12 by 15 inches), is headed "Disinfect" in two-inch letters and runs on, "Has any one died of consumption in the houses you rent? It killed others; it will kill you, unless you disinfect." Another reads, "Stop," and then, "and think this over! Suppose you had consumption. It is contagious. No hospitals in the state would receive you. Where would you go for treatment? It costs money to go West! Why not establish a free dispensary with a visiting nurse for the treatment of consumption in this town." A smaller folder is headed: "Does your cook live here? Or in this house next door? Under the first part is a picture with a legend saying "In this Mississippi negro home nine cases of tuberculosis developed." Under the second part is a picture with this caption "This house adjoins Number 1; in it two cases developed." At the bottom of the circular is the startling statement "Mississippi had 2,565 deaths from tuberculosis in the past year. 2,041 of these were negroes; many of these were due to poor housing."

Over 25,000 of these posters and cards have been distributed in Mississippi. Samples of them may be obtained of Mrs.

R. S. Phifer, Jr., Secretary, Seuter Bldg., Jackson, Miss.

Delaware's Colored Sanatorium

The Sanatorium for Tuberculous Negroes provided by the State Legislature of Delaware a year ago, is now a fact. A site has been selected by the committee of five appointed for the purpose, and a temporary building has been opened with a number of physicians in attendance. Considerable opposition was experienced, both from within the committee appointed by the Legislature and from without, but the pressure of the Delaware Anti-Tuberculosis Association, and the State Tuberculosis Commission finally forced the committee and those interested to act. The site consists of seven acres of well wooded and well watered land within a half mile of Hope Farm, the Sanatorium conducted by the Delaware Anti-tuberculosis Association. The hospital will be administered from Hope Farm. It is hoped that by the fall accommodations for twenty patients will be completed. An appropriation of $10,000 was made for the construction and site, and $5,000 additional annually for maintenance. This is the first state sanatorium of its kind in America.

Washington Association Meets

At the recent Annual Meeting of the Washington Association for the Prevention and Relief of Tuberculosis, steps were taken to insure a large attendance at the Annual Meeting of The National Association for the Study and Prevention of Tuberculosis which will be held in Seattle during the month of June or July, 1914. The exact date of the National Association meeting has not yet been set. In addition to a splendid program, the delegates from Washington and surrounding states participated in the laying of the corner stone of the Mountain View Sanatorium being erected by Pierce County near Tacoma. This is the first county sanatorium in the State of Washington to be erected under the law of 1913. At a cost of only $300 a bed, the institution will be a model of its kind in many respects.

Pittsburg's Tuberculosis Hospital

Distinct progress is being made with the tuberculosis hospital being erected by the City of Pittsburg. It has been announced that the hospital should be ready for occupation by November 1st. The hospital will cost when completed over $200,000. A bond issue to this amount was provided nearly five years ago and for a considerable time the establishment of the institution was in doubt. It will accommodate when completed, nearly 500 patients.

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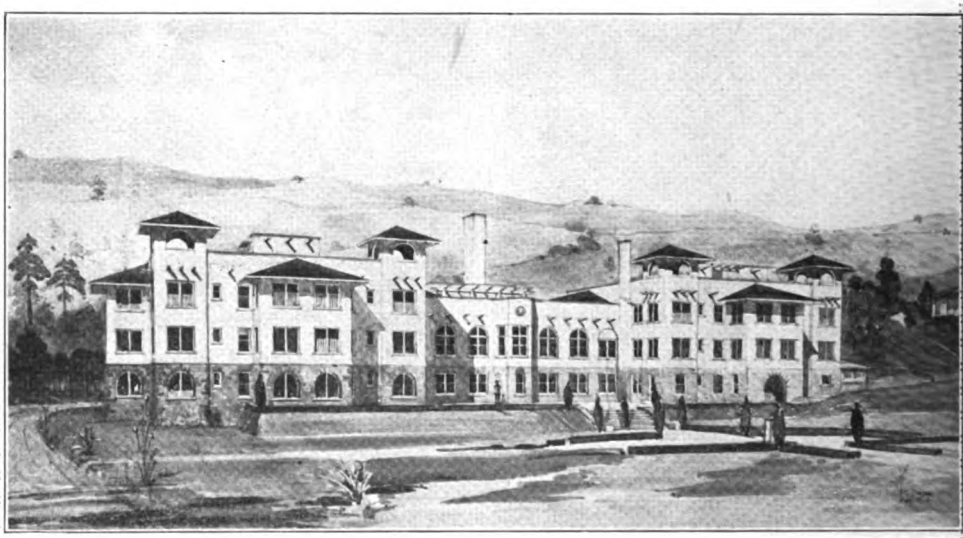

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For full particulars address the Physician in Chief.

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The Anti-Tuberculosis and Health Magazine

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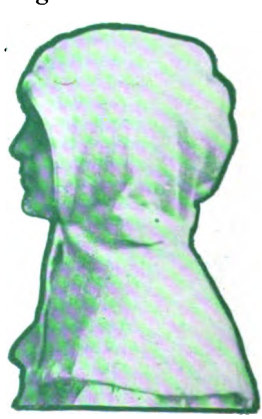

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Journal of the Outdoor Life

VOLUME XI DECEMBER, 1914 No. 12

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Volume XI DECEMBER, 1914. No. 12

Journal of the
OUTDOOR LIFE

A REVIEW OF THE CURE AT A SANATORIUM*

BY A. A. PLEYTE, M.D., ASSISTANT PHYSICIAN, WISCONSIN STATE SANATORIUM, WALES, WISC.

Seeing you every day and noticing the many difficulties most of you are experiencing and the many errors likely to be made while taking the cure, I cannot help feeling that there are many things which I can better bring before you collectively rather than individually, to help you on the road to Wellville by a few well-directed suggestions.

Many of you come to this institution and wish to obtain restoration of health. At least that is the assumption of the institution and what you would tell us should we ask you. Others come to find out what a state sanatorium is, how it is, and what it is doing to effect an arrest of pulmonary tuberculosis, with the idea of caring for themselves and directing their own pathway after a visit of a month or two. Still others come, who form by no means a small percentage, entertaining the idea that, having submitted themselves for examination, having obtained a bed in the institution and having settled with the steward for their maintenance, it is up to the institution and physicians in charge to restore their health. A few others come for shelter; for a place in which to rest; for a visit to try the cure in their native state before going West; or for lack of a more appropriate place. Some come here as a last resort after they have already spent a small fortune trying all sorts of consumption remedies, concoctions and "cures," only to find out that nature will not be tampered with and that her demands for obedience to her all powerful laws must be met.

No matter how you got here, we are one family, have one definite object in view, that of regaining health through instruction, education, discipline and treatment. Thus having a common interest, it is our job to make the best of things as they are; to better them if possible and to go happily onward, willing, resolute and determined to overcome our common foe, the tubercle bacillus.

The fight is long, slow, difficult, nerve-trying, courage-breaking and hard to look in the face at first, but gradually we find the situation changes and we are in an atmosphere of hope. Both we and our neighbors are feeling better and have gained in weight and strength. We are getting acquainted and are learning the routine of sanatorium life, with the result that our burden is becoming lighter as the outlook grows brighter. Thus the first two months have passed along. We have had our examination, a talk with our doctor as to his opinion of our condition, the improvement we have made, and we have gotten his suggestions for taking the cure better and for correcting mistakes, and possibly on other matters of more personal interest. We return to our cottage, recalling the interview with our physician, his suggestions and what we have and have not done during the past two months. Then we try to size up the situation and look it squarely in the face, resolved to do even better the coming

*This article summarizes a lecture given to the patients of Wisconsin State Sanatorium.

two months than the first two by correcting every possible error.

We think back to the day of arrival at the institution and our first impression of it. How we wondered which bed and cottage we would be sent to and if there would be anybody there we might know. We expected to be very lonesome, with time hanging heavily on our hands. We arrived at the administration building with one or two other persons, who we find are also coming to the sanatorium to take "the cure," and as we entered the building, were greeted in a business-like manner by the superintendent or matron and were asked to await an interview and an assignment to a bed and table. After assurance and encouragement from the superintendent we were taken to our cottage by a nurse. Here the preliminary explanations as to the use of gauze in coughing, collection of all sputum in boxes provided for that purpose, and other necessary information were made. The cottage was named, and looked ideal as well as comfortable. We were introduced to a couple of other patients, who looked healthy and appeared to be happy and cheerful. We soon became acquainted when the nurse left for the evening, after taking our temperature and pulse. Then, tired and finding the bed comfortable, we retired and in a few moments fell asleep.

The next morning we awake with a start perhaps, and find it is "Old Faithful" telling us to get up and take that cold shower we heard about the evening before. We rise and find the other patients rising also and heading for the shower bath. We take our shower, dress, and soon hear "Old Faithful" blow again, although only a short blast this time. Everybody is leaving the cottages. Following them, we find ourselves in the dining room with a fine dish of hot cereal, bread, bacon and potatoes before us, to which we do fair justice. We leave the breakfast table and return to our cottage with the other patients. We notice now how healthy most of them look, and, though filled with hope, we wonder if we will ever look like that. We wonder as we see them laughing; but as we talk things over, we find out that they feel well, happy, satisfied, contented and are trying to help the newcomer to get acquainted.

On our return to the cottage we sit down in our reclining chair and look around us over the surrounding rolling, wooded country, and are impressed with its exquisite beauty. We are then taught to take our temperature and pulse. This is a real undertaking, a duty which we formerly thought belonged only to the nurse or doctor. After this a newsboy and postman pass, and we buy a paper. We read awhile until we hear footsteps approaching. The door closes, and a hearty good morning is heard, supplemented perhaps with "How are you this morning?" The answer, "Fine this morning, doctor," tells us of the morning visit of the physician making his rounds. He arrives at our chair and introduces himself, and after a few questions, he tells us to meet him at his office at 11:00 A. M. for a thorough examination and suggestions as to what is expected of us. After a time we hear "Old Faithful" blow again and wonder what he wants now, for we do not feel very hungry as yet. We look at our watch and find it is 10:00 o'clock. We see others getting out of their chairs, stretching and putting on their wraps as they leave the cottages. They are out on their morning exercise as prescribed for them. Eleven o'clock finds us in the doctor's office.

How well we remember those all-important questions we had in mind after the completion of our examination, "Where *is* my trouble, doctor?" "Do you think I'll get better?" "How long will it take?" and "What must I do?" We remember, too, some of the suggestions and advice given us, which was so helpful, encouraging, stimulating and yet short, forceful and impressive of the gravity of the situation. His answer to our questions and further advice to us was essentially this:

Tuberculosis is a chronic disease in the vast majority of cases, progressing very slowly and more often than is admitted or can be proven, a disease of many years' standing. Perhaps many of the so-called "colds" you experienced were the manifestations of acute exaccerbations of the then so far unrecognized latent or inactive tuberculosis. Tuberculosis furthermore is *not* similar to other diseases in its earlier stages in one very important respect. It is not a disease similar to diphtheria, smallpox, scarlet fever, typhoid fever or pneumonia, wherein a patient is made to realize in the course of a few days that he is sick, must go to bed and do the bidding of his doctor. Quite to the contrary, it creeps upon him slowly. The tubercle bacilli or causative bacterium of tuberculosis gains a foothold when you are not obeying Mother Nature's laws, when you are working overtime earning the few dollars which are so desirable, and when in a few words the soil is being prepared. Because tuberculosis is a chronic disease and does not put you on your back until it becomes advanced, it is quite likely not to call your attention to the latent trouble till more definite symptoms appear, such as cough, expectoration, beginning loss of weight, weakness, digestive disturbances, shortness of breath, and perhaps pain in the chest or night

sweats. By this time the disease is usually moderately advanced, involving one or two lobes of the lung, oftentimes an entire lung, before you notice much inconvenience or fear you have caught "cold," or have an attack of bronchitis. Therefore, in answering the question as to where our trouble is located, it was not so surprising to learn that it involved the upper lobe, middle lobe, lower lobe, or all three.

Our second and third questions as to the probability of an arrest of the case and the length of time needed were answered together. He said: "An arrest of tuberculosis is possible if you are willing to take the cure, to allow your physician to direct your forces, and if you will take the long, sure road to Wellville, and make the many sacrifices so necessary to an arrest of your tuberculous activity. The sacrifices are to be made cheerfully, willingly, and with a determination to win out in the struggle. It might be well broadly to classify them. First, we must sacrifice the home and its surroundings. Second, our brothers, sisters, parents, children and other relatives who have shown us such kind consideration and sympathy. Third, the care of a family or those dependent upon us. Fourth, the earning of a livelihood or preparation for an education. Fifth, the denial of many former pleasures and the many things which seem to take away our joy and happiness in life.

"You must cultivate in yourself that courage which defies all temptations and questions every action, a courage possessed by so few who are near the goal. Character here plays a very important rôle, for as you think and aim, so oftentimes will the outcome be. Don't let your troubles be cast upon your neighbor. He, poor fellow, already has plenty of them. You do not cheer him up by giving him to understand that perhaps your troubles are worse than his. Your troubles have been good experience for you. Use them as stepping-stones to overcome greater difficulties and obstacles, to fortify and strengthen your future position. As to worry, one hour of it is more trying and uses up more nerve-force than a whole day of hard mental labor. Worry is the hardest mental labor. Attack worry with the 'I should worry' attitude, and it will yield. Use your will power. Don't despair or be impatient. Believe the saying that all good things come slowly and to those who wait. The patient with a strong character needs but a hint to protect him against dangerous situations. Character possibly more often determines the length of stay of a patient at the sanatorium and his ultimate recovery than any other single factor. It is hard, if not impossible, for many patients to do the many things asked of them. We may say then that the length of time needed in regaining health from tuberculosis is dependent on the above named factor to a great extent, as well as those yet to be mentioned."

The fourth question, so commonly asked us, namely, "What am I to do to get well from tuberculosis?" is a broad one and needs careful consideration. Too often the answer is, "Sleep outdoors, eat all the eggs and drink all the milk possible and rest." From what we have already told you, this falls short of the desired treatment and is many times the cause of the question later on as to the advisability of taking the cure at home. Many of the details in regard to taking the cure properly are given to you the first few days of your stay at the institution, although new suggestions are being learned from time to time as required. The amount of rest and exercise best for you is prescribed by your physician. The usual rest of two weeks prescribed for you upon entering the institution is best for you because it allows us time to get acquainted, to make the usual laboratory examinations, and to observe your temperature, pulse, respirations and general condition. Then, after careful observation of two weeks, we can tell if it is best for you to have exercise and, if so, how much. In regard to the care of sputum, under no circumstances is anyone allowed to expectorate outside of the sputum box provided, for only by most vigilant care of it can the rest of us hope to be protected. The gauze furnished to you must always be held over the mouth when coughing or sneezing.

In regard to food, three wholesome, nourishing meals a day are sufficient for anyone. We do not believe much good is derived from lunching between meals, as the stomach and intestines have all they can do to digest three meals. It is indeed a poor sacrifice to put on a few kilos in weight and find out after a short period of time that you have lost your appetite, and it is only with much difficulty that you can hope to start over again on a rational basis. Digestion, perhaps playing one of the most important rôles in getting well, is not to be sacrificed so cheaply. We might mention here that tuberculosis is essentially a disease of nutrition. It is a common observation for us to note the direct relation between expectoration and digestion, that is to say, when expectoration is increased, digestion is at a lower ebb than it usually is.

A cold shower or sponge bath in the morning is desirable, for three reasons: first, to maintain a healthy, cleanly skin; secondly, to protect against catching cold, and thirdly, to harden you, to stimulate the nervous system, and to equalize the circulation.

A word in regard to amusement and occupation during the spare time found by most of you when you have nothing particularly to do. Remember work before pleasure. A patient who is not willing to give up the much desired amusement and pleasure, when his physician or own conscience tells him to be careful for his own benefit and recovery, has not entered the line of those taking the cure enthusiastically. He will sooner or later fail, and be seeking a short route to Wellville, which has not yet been found. Exciting games, getting overheated, mental strain, music which moves you, depressing correspondence,

temper-trying talks, arguments and amusements are distinctly harmful and should be avoided. No amusements should interfere with your receiving 100 per cent fresh air. Most amusements are forbidden with a temperature of 38° C. or over.

A word about that troublesome, inconvenient and betraying cough. There are several factors which will bring on a cough, namely, excitement, climbing hills, walking fast, talking too much or too loud, coughing from habit, inhalation of dust, irritation in the throat, and the desire to expectorate. One single rule controls the situation: *Don't cough unless you are sure you can expectorate, as all other cough is useless, irritating to throat, voice and lungs, often even producing vomiting.* There is no need furthermore for those lung-racking spasms of cough, for if sputum is ready for expectoration, a series of short, soft expirations in quick succession will raise it. If it is not, wait a while, be patient and give Nature a chance. She is kind and can be depended upon.

Many details in answering the question as to what you should do when taking the cure could have been given you this evening in connection with the variety of food, attitude of a tuberculous patient toward food, etc., also specific details as to rest and exercise, the use of 100 per cent fresh air, how to sleep, conduct, etc. But to enlarge on these things now would not be advisable, as any of us can assimilate only a certain amount at one time. We shall learn more about them at a later time.

Thus after a brief review as to our condition, and a few necessary suggestions to help us through some of the main difficulties in our treatment, we leave the doctor's office with great hope, courage and determination to carry out his suggestions to us in taking the cure. We try our best every day to learn more about tuberculosis.

After taking the cure from two to six or eight months, it so often happens that we think we know all about it, and we ask our physician if he doesn't think we could do just as well at home, providing we slept outdoors, took our rest hour, and tried to live as nearly as possible the life of the sanatorium. We know the usual answer: "No, indeed; all the facts of experience are against it." But not being satisfied with this answer, we ask further: "Why is it you say your experience tells you the odds are all against it? How is it, after we have spent a couple of months learning to take the cure, we cannot practice it at home?" Our answer to the above questions is quite a long one. It ought to be enough satisfaction to you to know that to take the cure at home is not as satisfactory. But believing a few suggestions on this important subject will be helpful to you, we shall enumerate them.

If we are going to take the cure at home, we must of necessity turn the home into a small sanatorium, provided we wish to obtain ideal conditions for regaining health. Two or three obstacles present themselves to us here: first, that of treatment in the home by a physician unversed in sanatorium practice. You are not really sick in bed; you are up and about and often too buoyant in spirits, not needing the call of the family physician daily, which would of course run into a large "doctor bill." Say, then, the physician calls but once in a while, every week or two, to see that you are getting along right and to tell you what to do. Tuberculosis is difficult to master this way, and many things, innocent enough to a healthy person and often approved of by your family physician, are to you distinctly harmful, often undoing in a day or two what it has taken you months to gain by hard patient work. Do you think your younger brother or sister could grasp successfully by your occasional instruction and assistance your difficult problems in algebra or the many difficult passages in Greek or Latin masterpieces on which you have worked hard at college with daily instruction, personal advice and help? No, he would not grasp it; he would not have the great interest in it, nor the rivalry in the best preparation of it. He would not know most of the time when to study nor how and how much to study. In fact, we may say that a sanatorium patient will make as much improvement in a month as the best cared for patient will make in two or three at home. And, as "time is money," therefore by sanatorium treatment we are ahead economically or financially. Truly enough, there are many things which seem to lend more pleasure at home, but we are not taking the cure for pleasure. We want to save our life and restore our health. It is a fact, as we started out to say, that the number of patients obtaining restoration of health at home are comparatively few and too often represent only an arrest of the active symptoms of tuberculosis and not an arrest of the disease. Furthermore, a patient at home has not the association of other patients who are in their class and taking the cure. He loses that "boost," so to speak, so desirable because of the rivalry in taking the cure with others, seeing others going home in good health from time to time, and also noting that to get well is not a matter of a few weeks but of months. Then, too, the example set by others, and finally the encouragement and assistance received by the less fortunate from the more fortunate. A few other advantages of sanatorium treatment are the routine, systematic and regular mode of living and habits formed, the rigid discipline maintained, the advantage of the many details in treatment found only in an institution, and finally medical supervision by physicians, nurses, etc.

Thus you will see we have nothing miraculous to offer you, and it is only courage, hard work, the numerous sacrifices, training, education and your "stick-to-itiveness" and observance of the many laws of Mother Nature that we can hope for your best welfare and earliest recovery.

NATURE STUDY AS A RECREATION FOR TUBERCULOUS PATIENTS

BY AN EX-PATIENT.

The problem of keeping the mind of a tuberculous patient happily occupied and at the same time giving him the required amount of rest is often a perplexing one. Perhaps the way it solved itself for me will be of interest to others.

I was a patient for two years, and for a year and a half was "off exercise" most of the time, because of a temperature just high enough to keep me in my chair. I

THE LEAKY HYDRANT, WHICH ATTRACTED BIRDS IN SUMMER WAS A RARE SPECTACLE IN CALIFORNIA WHEN IT FROZE UP IN DECEMBER.

did not consciously attempt to find amusement. It came unasked and in most delightful ways, but through means that could be utilized in any part of the country by almost any patient, with the exception of one confined to the bed.

When I began to take the treatment for tuberculosis I felt as if I were a prisoner out of doors, but long before my two year's treatment were over, I had learned to rejoice in my prison. Nature had lavishly entertained me.

My tent was in a vacant lot, and in that same lot I sat during the day. Happily for me only a few feet away was a leaking hydrant. It attracted the birds. As I was in Southern California they were constant visitors throughout the winter, and every day, without the least exertion on my part, I was most delightfully entertained. I'll never forget the wonderful blue of the California bluebird, or his own inimitable way of fluttering from the telephone wire down to the dripping water. Robins came in large flocks all through the winter. The beautiful little Audubon warbler, always distinguishable by the bright yellow rump and white wing patches, was a constant visitor. Flocks of the beautiful cedar waxwings were occasional visitors. Then there was the friendly towhee, who constantly hopped about my chair, and the lark sparrow who kept up a pleasing warble from the umbrella tree near me or from a more distant palm.

Not only the water from the hydrant attracted them, but the grass and weed seeds throughout the lot. About three o'clock every afternoon goldfinches, Audubon warblers and other seed-eating birds came for their evening meal. There were so many that the cracking of seed pods was audible all about me. I found an opera glass to be a wonderful delight, not

"MY TENT WAS IN A VACANT LOT."

only for close observation of the birds, but for the enjoyment of my neighbor's flower gardens.

Along the first of May when all danger of rain was over, my bed was moved from my tent into the back yard. Then I was completely in the open, with only the umbrella tree and the stars above me. A mocking-bird roosted in the umbrella tree

WHO COULD POSE BETTER THAN SIR CHICKADEE?

every night. To my great amusement he used to awaken in the middle of the night and sing, but his most astonishing feat occurred early one morning when he gave me a direful fright by alighting on my upraised knee, and thereby suddenly arousing me from a sound sleep. My doctor had told me to live as much like a vegetable as possible. I began to think I must be growing to look like one.

My advise, then, to an out-of-door patient would be to attract birds in all possible ways. They will be a constant source of delight.

Two years later I was spending the winter at my home in New Hampshire. I had been pronounced an "arrested case," the previous August, but according to my physician's advice determined to spend at least three hours out of doors every day. The winter was an intensely cold one, and there were days when holding a book to read was out of the question. How was I to pass the time away with any degree of pleasure? Again the birds came to my rescue. It happened that a piece of suet was hanging by the door, just above where I sat. For some winters it had been the custom of the family to hang it there to attract the chickadees. I feared the birds might resent my appearance so near their dining table, but was agreeably surprised to find them only slightly worried. They fluttered about my head for some minutes, then to the suet where they ate as contentedly as ever. The next morning I pinned a piece of suet to the blanket in my lap. One bird soon alighted on my head, hopped down to my shoulder, then into my lap, and immediately began to eat. From that time on I had no fear of the monotony of sitting out. The birds became so tame they stood in my hand to eat. They hopped all over me and alighted on my book when I was reading. I never had a more delightful bird experience. Then, too, by throwing out corn, wheat, bird seed, scraps of meat and crumbs, I attracted other birds close to my chair. The blue jay, tree sparrow, pine grosbeak and woodpecker came and later in the spring the song sparrow and junco arrived in flocks, flying fearlessly about me for the food that I had scattered.

A friend suggested that I make use of my kodak, and obtain snapshots of my bird friends. I had only a Brownie No. 2, but it afforded me much pleasure. To obtain a chickadee's photograph I placed a piece of suet where the light and distance were right, then when I heard the birds coming I placed the kodak in position and sat motionless until the bird was within range of the lens. Sometimes I caught him and sometimes I didn't. There were many failures, but those only inspired me to try again. I used the portrait attachment to get nearer and larger views.

THE SONG SPARROW.

Bird life is not the only phase of nature that a tuberculous patient may enjoy. If one is required to sit out in the evening until bed-time, as I was, there is the opportunity to become acquainted with the constellations and the planets and their movements across the heavens.

One may even have a few experiences with quadrupeds. Mine was limited to dogs, cats and skunks. I'll never forget the midnight visits paid me by the last named animal. If my hair had been short, I'm sure it would have stood on end the first two or three times, when in the dimness I saw this black and white creature, with its tail swung gracefully over its back, its nose to the ground, emitting a constant

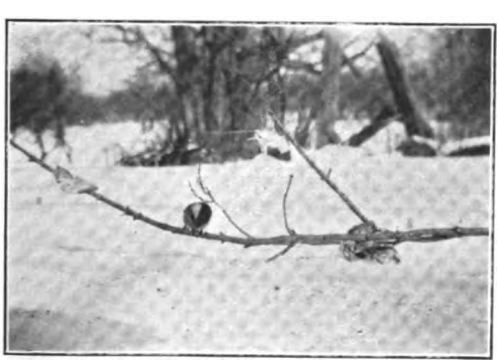
A TAME VISITOR.

snuffing sound, coming straight for my bed and even walking under it. I soon learned, however, that he was not highminded; he always came with his nose to the ground, seemingly unconscious of my presence, and although I never really enjoyed any of his visits, still I came to endure them in comparative peace of mind.

The study of moths and butterflies is another phase of nature study, which patients who are permitted any exercise can easily pursue. With a net, the perfect insect may be caught and preserved for a specimen, or kept for the purpose of obtaining eggs and from the eggs following out the life history of the insect. Larva-eggs and pupae are always attractive hunting, when one is out for exercise. A caterpillar may be kept and fed and its transformation watched. If one enjoys the study of Lepidoptera, he may become a "butterfly farmer" when he is strong enough.

Other orders of insects may appeal more to some people.

Besides the study of entomology there is the study of botany, which, for those patients whose exercise is very limited, may, perhaps, be more easily enjoyed than any of the other natural sciences, with the exception of ornithology. When I say the study of sciences I do not mean that any patient should take them up in a "schooly" or "museumy" way, but for pure fun—for the "fun of seeing things."



"A HARD NUT TO CRACK."

Ernest Harold Baynes, Manager of the Meriden N. H., Bird Club says: "Almost daily I hear expressions of regret from people, who realize perhaps too late, how much more they might be getting out of life, if they had but a little more of intimate knowledge of our common birds, our common quadrupeds, our wild flowers, trees and shrubs." He says, moreover, that one of the greatest possibilities for happiness in this world lies in one's love for the out-of-doors. When will there come a more opportune time for becoming acquainted with nature and allowing one's love for it to sprout and grow, than when one is turned out of doors into the midst of nature and told to "live as nearly like a vegetable as possible"?

A day or two ago I went for a nature walk with a small party of nature lovers. It was but a short walk. We followed around the edge of a small field, then down a short woodland path and found forty-three species of trees and shrubs, enough, with the aid of a book on those subjects to keep a patient entertained in his chair for some days.

Why isn't this a suggestion for sanatorium patients? Let those interested form a nature club and take nature walks during their exercise periods, under the guidance of the most competent nature student among them, or better still, form themselves into a Chapter of the Agassiz Association.* The Association will answer questions, offer suggestions and identify specimens. It exists for the purpose of creating a love for nature among all classes of people.

A small magazine called "The Guide to Nature," and published by the Association, gives hints on all phases of nature study, suggests interesting collections to make, tells how to attract birds, and each month gives a map of the constellations with a clear explanation. I have found it a delight and a great help.

Let those of us who are turned out of doors and know not how to keep our minds from a sordid dwelling upon ourselves and our misfortunes, turn to the study of the life close about us. Our misfortune will become our fortune. We shall not only regain our health, but a larger mental wealth.

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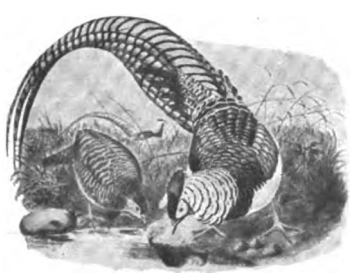
*The Editor of the Journal heartily commends this suggestion. The regular price of "The Guide to Nature" is $1.00. Readers of the Journal may secure it from the Journal office for 75c a year alone or for $1.35 in combination with the Journal. Details concerning membership in the Agassiz Association may be obtained from Edward F. Bigelow, Arcadia, Sound Beach, Conn.

MAKING CONVALESCENTS PAY BY PHEASANT RAISING

BY JNO. W. TALBOT, SOUTH BEND, INDIANA, SECRETARY OF THE GAME BIRD SOCIETY.

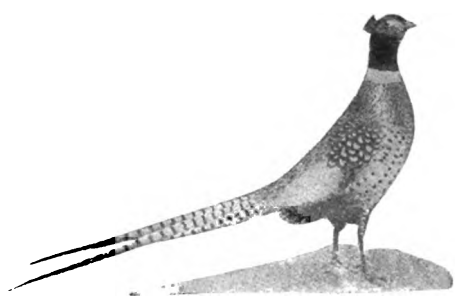
The convalescent needs freedom from worry, light exercise—compelling employment without fatigue or heavy labor, and something to occupy the mind. Pheasant raising furnishes all these. One who is conquering illness has had to sacrifice earning capacity and time and is apt to have an empty pocket book. If the time of convalescence is to be a drain without promise of financial returns, it is impossible to keep the mind from dwelling upon the lack of income. This mental condition impairs the recuperating force of the body.

Pheasant raising can be successfully carried on by an invalid. It requires no heavy lifting, digging or hoeing. It does require handling a little feed and birds weighing not to exceed two to four pounds. It can be carried on in any garden within a six-foot wire fence of two or three-inch mesh. While this keeps the pheasant-raiser moving about, it does not require long walks with their consequent fatigue and over exertion. It differs from raising chickens and other birds, in that the pheasant is neither noisy nor disagreeable. It does not keep one awake crowing. does not fray one's nerves crackling, has no strident disagreeable call, and never gets on the patient's auditory nerves, racking the body and driving one's hands to his ears. To its other charms the pheasant adds indescribable beauty. Its plumage develops all the original colors and many combinations of colors.



LADY AMHERST PHEASANT.

The bird averages three pounds in weight and is hardy. The Ring Neck, Golden and Amherst Pheasants are particularly desirable. The Ring Neck develops more rapidly than either of the others and attains greater weight. This bird is marketable within four months after hatching. The Golden and Amherst do not develop their full plumage until they are fourteen months old, but when it is developed they are marvelous to see. The Amherst and the Golden sell readily for $20.00 and $10.00 per pair respectively, and the Ring Neck brings $6.00 per pair.



RING-NECK PHEASANT.

The demand for Ring Necks for game preserves is greater than the number of birds available. I have on my desk requests that I am unable to fill for one thousand Ring Necks from the New York State Game Commission, and one hundred from Hon. Dwight W. Huntington of the Game Conservation Society. The eggs of the Ring Neck sell in settings of twelve eggs each and readily bring $5.00 per setting. A Ring Neck hen will lay from sixty to one hundred and twenty eggs a season.

GOLDEN PHEASANT.

One male can be mated with five or six hens.

Six of these birds can be kept in a pen 15 by 30 ft. The pen can be built about shrubbery, vines or bushes, and these will not be injured by the birds, but will furnish hiding places and serve to make the enclosure in which they are kept more attractive.

I recently visited the place of Helen Bartlett at Cassopolis, Michigan, and it would be impossible to overstate the good that I found her to be deriving financially and physically from pheasant raising, at which she is making a living. She assured me that it would afford her pleasure to be able to advise any who felt they could be benefitted by corresponding with her. This employment passes the time; with it hours do not drag and the financial interest of the patient keeps alive ambition which aids recovery.

REMINISCENCES

(With apologies to Omar Khayyam.)

By H. ANTHONY DOYLE.

I.

Wake! To another day of rest.
Let all worries give way to jest.
Let Rest, Good Food and Nature do the work,
And you will soon with health be blessed.

II.

A Book of Emerson underneath the bough,
A glass of milk, a raw egg—and thou
Beside me whooping 'mong the piñons—
Oh, "The piñons," were Paradise enow!

III.

And that inverted Truth they call the Lie,
Is often used in advertising Fake Cures sly,
Lift not your hands to *them* for help—
For if you do,—"It is to Die."

IV.

I sent my Bowl into the Kitchen,
For better Mush,—but it befell;
The Cook she sent it back to me,
And said, "Shure and its You Yourself may go to H———!

V.

Ah! Beloved Nurse, fill with Raw Eggs the Mugs,
And bring the cooling Milk in Jugs:
TO-MORROW!—Why, TO-morrow I may be free
Of Yesterday's Seven Billion Bugs.

VI.

For some we loved, the loveliest and the best
Unfortunately were stricken,—and Confessed,
They did not know the contented, cheerful way,
So one by one crept silent to rest.

VII.

TO-DAY a chance from Nature's Cup to Quaff;
TO-MORROW perhaps at fleeting T. B's Scoff.
So Drink! for you know not whence they came, or why:
Drink! for you know not why they go, nor where.

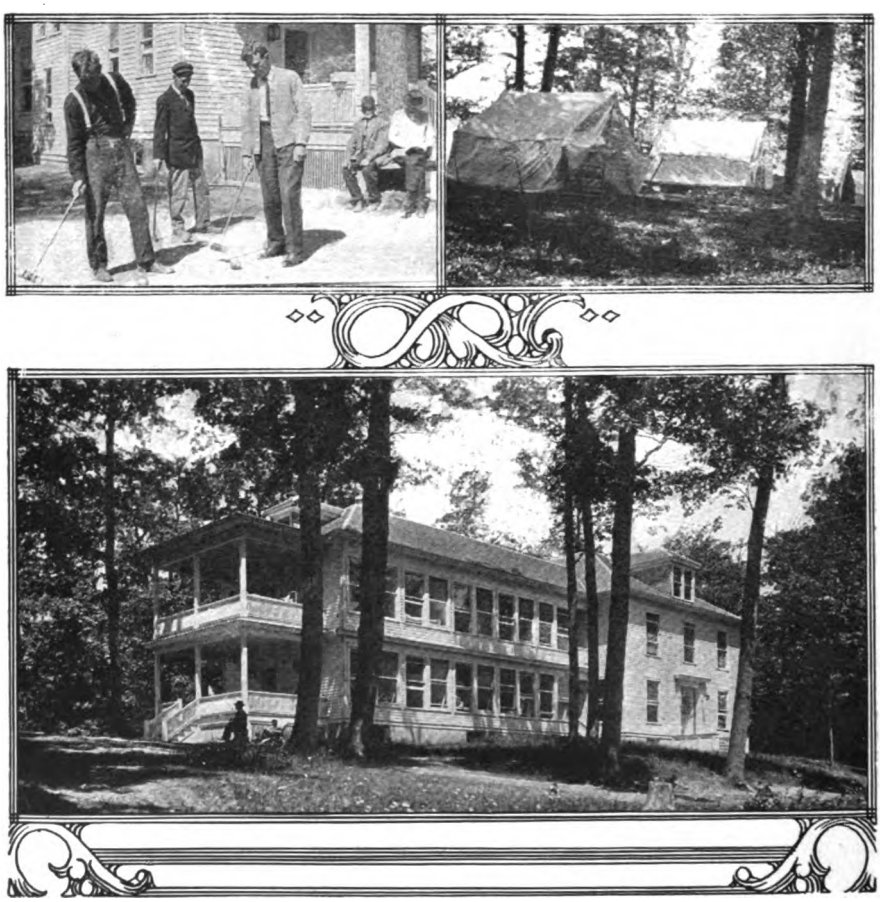
VIII.

And when like her, oh Nature, not too fast
You have made me Whole again at last,
Rejoice in your Joyous Accomplishment
Of starting ME anew—turn down THAT EMPTY PAST!

THE WHAT, HOW AND WHY OF A COUNTY HOSPITAL

BY EDWARD A. MOREE, ADVISORY EXPERT IN PUBLIC HEALTH EDUCATION, NEW YORK STATE DEPARTMENT OF HEALTH.

A certain county official, acting on a committee to determine the need for a county tuberculosis hospital and to learn if the experience of the twenty-three local hospitals in New York state had been satisfactory, at the close of his investigation described his attitude as follows:



SCENES AT NEW YORK'S FIRST COUNTY HOSPITAL, OAKMOUNT, ONTARIO COUNTY.

"There can be no doubt that there is a terrible loss of life from tuberculosis in this county. My investigation convinces me that county hospitals are succeeding to a remarkable degree in curing early cases; that they are caring for the advanced cases more humanely than they could be cared for in their own homes, and that thus they attract patients in large numbers, whose families are thereby protected from the danger of infection. In short, the experience of the counties we have investigated is very encouraging. My only doubt, however, is whether the county hospital plan is the best one for solving the problem of tuberculosis in our community. There is no alternative plan that I know of that has been tried. I am merely not sure that the proposed plan is the best."

This official, therefore, in the best of faith, counselled delay.

The Logic of This View.

One might apply this same line of reasoning to himself, with the following results:

"Yes, I am sick. It is true that doctors are said to be necessary in such cases as mine, and I know that in the past they have usually succeeded in relieving the suffering such as I am now undergoing and in curing diseases such as mine. There is no alternative that I know of, but something may turn up some day. So I will not have a doctor."

Or again:

"I have a toothache. It is true that dentists have done great good in most cases of toothache. There is no alternative that I know of, but a better plan may turn up. I must not be hasty. I must not risk paying a needless dentist's fee, if, later, a better plan appears."

A general with an intelligent plan of attack, formulated, reviewed, and approved by military experts, tried out in previous wars and found successful, would be court-martialled and removed from command if he "waited for something better to turn up" and allowed his army to be cut to pieces while he "waited."

The enemy is tuberculosis, entrenched among our people through centuries of public and personal neglect, making its war upon our friends and relatives from behind earthworks of personal and public ignorance and want. Arrayed against this foe are the regiments of physicians and lay workers, all marshalled under the colors of the State Department of Health with its general staff of experts, and its district sanitary supervisors and local health officers as field commanders. This official force is supported all along the line by the State Charities Aid Association with its army of 10,000 committee members and its various cooperating allies.

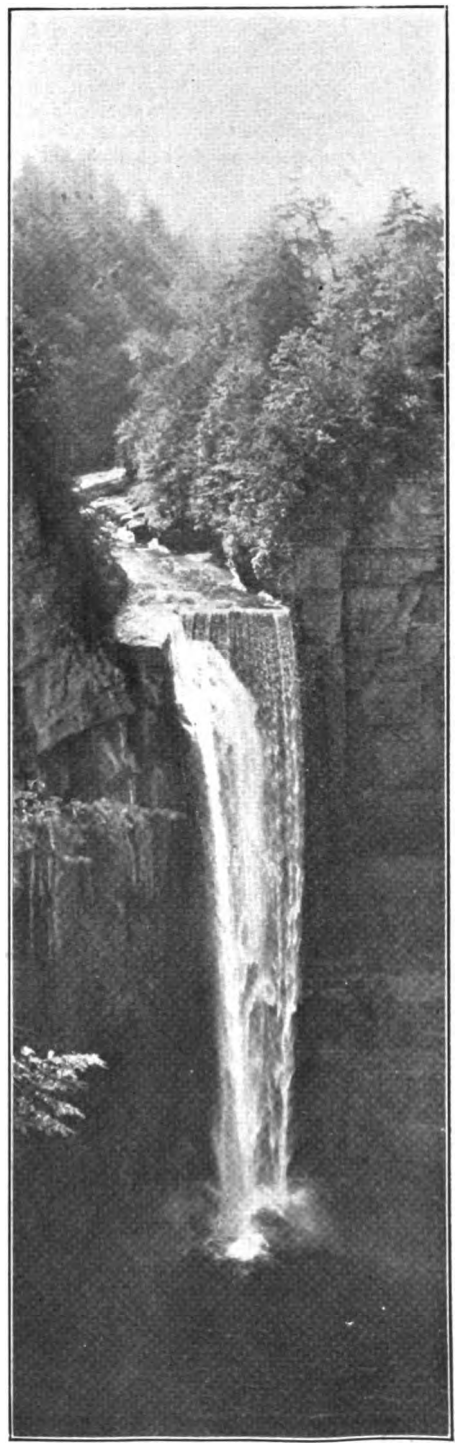
Chief among the active field force are the local officials, upon whom rests the responsibility for carrying into effect the plan of campaign which has been mapped out, reviewed, and approved by experts and, moreover, has been tried out and found successful.

This plan of campaign as it involves the local officials requires the following steps:

1. Employment of visiting nurses by city, town and village health boards, to work under the direction of the health officer.
2. Establishment of dispensaries by the health authorities in the larger cities and villages for the examination of suspected cases.
3. Establishment of open-air schools for anemic and sickly school children predisposed to the disease.
4. The efficient medical examination of school children for the discovery of early cases of the disease for the removal of adenoids and enlarged tonsils, and for the discovery of other physical defects.
5. Most important of all, the establishment of tuberculosis hospitals by county boards of supervisors for the cure of early cases and the segregation of advanced ones.

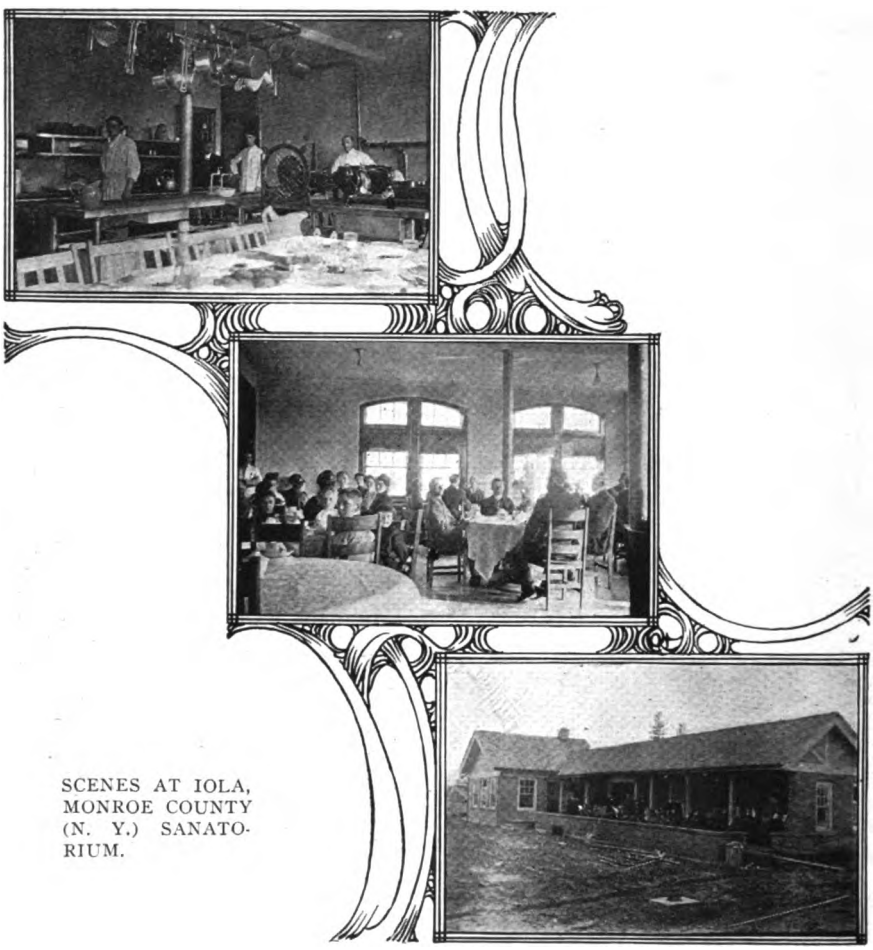
Plan Now Being Carried Out.

This plan of campaign is now being successfully carried into effect throughout the



TAUGHANNOCK FALLS, AS SEEN FROM TOMPKINS COUNTY (N. Y.) TUBERCULOSIS HOSPITAL.

state. Nurses are at work, caring for the sick and instructing both sick and well in nearly a hundred communities that before never dreamed of the necessity and importance of such work. Dispensaries are offering free medical examination and advice to patients who cannot afford to pay, in thirty cities and villages. Open-air schools are becoming the rule in the cities, and even the larger villages are beginning to awaken to their need. Hospitals are being established in county after county. Furthermore they are



SCENES AT IOLA, MONROE COUNTY (N. Y.) SANATORIUM.

so successful in drawing patients and in treating them that substantial additions to many have been found necessary.

Like a well-planned military movement the tuberculosis campaign in New York State has a chief objective, determined by the well-recognized needs of the tuberculous sufferer, viz.: enough local hospitals to provide a bed for every advanced case and enough sanitorium beds to provide curative treatment for every early case. These two features of the tuberculosis movement, forming its main objective, were emphasized and re-emphasized at the International Tuberculosis Congress held in Washington, D. C., in 1908. That Congress drew together experts from all over the world. After all the facts had been presented, and after all the arguments had been heard, the Congress placed itself on record in favor of this proposition: that the most important feature of the movement to control tuberculosis must be hospital care for the advanced cases, and sanitorium care for the early ones. It was further emphasized that these two requisites could be effectively provided only by locating institutions near enough to the homes of the patients so that they would readily avail themselves of their benefits.

The International Congress was held soon after the tuberculosis campaign in this state (outside of New York City) was placed on an effective footing. The opinions of the experts in attendance, men who had devoted years of study and work to the tuberculosis

problem, properly became the controlling force in the New York State movement.

Enough State Hospitals Impossible.

How to provide enough hospital beds for the tuberculous immediately became the important question.

The Governor, the leaders of the Legislature and public men generally, were consulted. Naturally, state hospitals first suggested themselves. But the state even then was far behind in its provision for the insane. It is even further behind now. The state's prisons were even then deplorably overcrowded. They are worse now. Even then the problem of the feeble-minded was being recognized in its many sinister phases, and the state was beginning to realize that it must make large expenditures to segregate that class of unfortunates. No, the state was already committed to more work than it could handle with its barge canal and good roads making ever-increasing demands on the public treasury.

The most important argument against a system of state hospitals, which must necessarily be "few and far between," is the difficulty of persuading patients to leave their friends and families and enter an institution remote from all they hold dear. With hospitals accessible to the world they know and that has known them this objection is largely overcome. This has been proven true in the experience with local hospitals not only in this country but also in Europe.

The state wisely decided that, aside from questions of financial expediency, tuberculosis was in its very nature a local problem, due largely to local conditons, and that it should be dealt with locally.

City hospitals were suggested. They were good, but if there were nothing but city hospitals, what would become of the thousands of sufferers in the rural districts?

Almshouse hospitals? A thousand times no! These people are sick—they are not paupers. It was wisely decided that it would be the extreme of folly to restrict the use of tuberculosis hospitals to almshouse inmates, which would be the practical result if institutions were established in conjunction with poorhouses. It would also be the height of cruelty to offer to a person who had been self-supporting before he became sick, the care that he needed to protect his family and the public with the stigma of pauperism attached to it. No, such a one, it was urged, deserved the best that the public could give and should not be forced to subject himself to disgrace in accepting it. Almshouse hospitals were therefore out of consideration.

The only logical solution to the problem then was county hospitals, entirely removed from any suggestion of pauperism and without any connection with the poor law machinery. Sickness is not poverty.

A law was passed, therefore, known as the County Hospital Law. It permitted boards of supervisors to establish hospitals for the care and treatment of all classes of cases of tuberculosis and provided for a board of managers appointed for five years, who should have entire charge of the institution, subject to the appropriations made therefor by the supervisors. It has been found that this plan supplies a more continuous oversight than could be given by boards of supervisors, and secures a more permament policy of administration than could be guaranteed by a board whose personnel changes every two years.

Counties That Have Hospitals.

Acting under this law, Boards of Supervisors of the following counties have established hospitals: Broome, Fulton, Monroe, Montgomery, Oneida, Ontario, Orange, Oswego, Rensselaer, Schenectady, Tompkins and Ulster. Lewis, Nassau, Cattaraugus, Chenango, Herkimer, Jefferson, Niagara, Onondauga, Saratoga, Steuben, Suffolk, Warren and Westchester have voted to establish institutions under the county hospital law, and they either have their institutions well under way or are looking for sites. Besides these, local institutions in several counties either wholly or partly answer the purpose of county hospitals, and contribute to the mass of experience which is daily convincing the people of New York State that county hospitals are the chief effective agents in the successful warfare against this disease. Such institutions are located in the following counties: Albany (two hospitals), Cayauga, Chemung, Dutchess, Erie (three hospitals), and Westchester (three hospitals).

Last year an amendment was made to the county hospital law permitting boards of supervisors to submit to the voters the question of establishing these institutions. On election day the voters of four counties decided this question affirmatively. Few propositions of greater importance to the public welfare could be submitted to the voters for decision. That the voters appreciated this is evinced by the fact that the total vote on the hospital question was nearly as large as the vote on the governorship.

Here is a true story which showed the voters in those counties what the lack of a county hospital may mean. A painter in a certain town—the breadwinner for a family consisting of his wife and three children—was stricken with tuberculosis. He considered himself fortunate in obtaining an early diagnosis and readily accepted his physician's advice to go to a hospital. He tried every place he could hear of or that his physician knew, but all were full and most of them had long waiting lists. He could find no institution within his slender means that could take him in. He could not get the care he needed at home, and gradually grew worse. His wife, overburdened by the care of her now dying husband, ran down in health and began to show tubercular symptoms. Shortly after her husband's death, she was told by

(*Continued on page 374.*)

MAKING DISEASE PREVENTION POPULAR

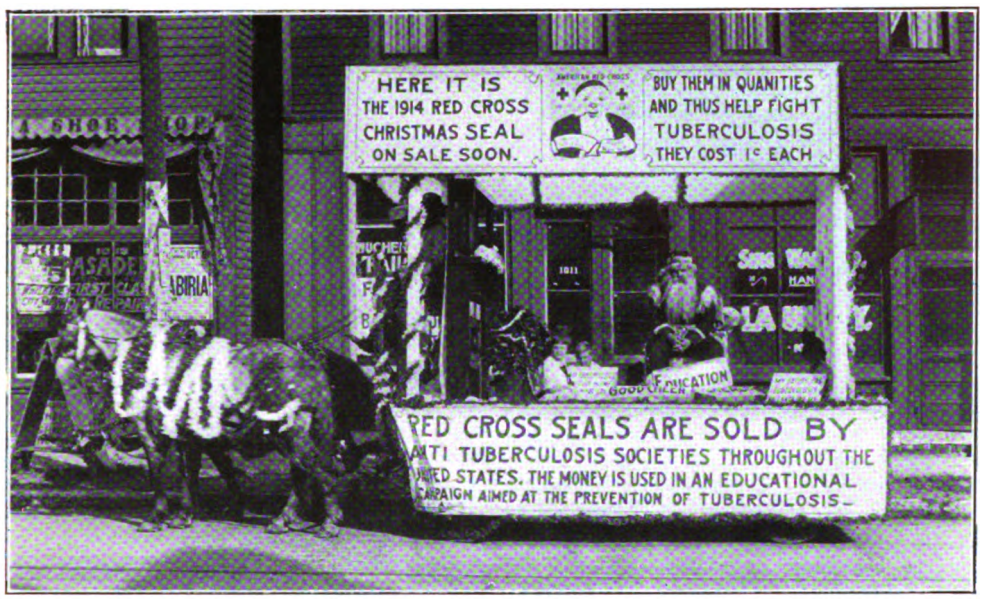
BY WALTER D. THURBER, SECRETARY INDIANA ASSOCIATION FOR THE STUDY AND PREVENTION OF TUBERCULOSIS, INDIANAPOLIS.

Indiana's Disease Prevention Day, celebrated in all parts of the state on October 2d, was an unprecedented success. In Indianapolis alone, 100,000 people watched the parade, which was one of several features of the general movement, and similar parades brought out big crowds in other cities and towns. The accompanying illustrations show some of the floats used in the Indianapolis parade.

Having its beginning in the imagination of a few anti-tuberculosis workers, the idea of such a movement expanded until it embraced the Indiana Federation of Commercial clubs, the Indiana Federation of Women's clubs, the school and health officers of the state, dental societies, church organizations, relief agencies and the public generally. To Mrs. Ella B. Kehrer, secretary of the Madison County (Ind.) Crusaders, belongs the credit for inaugurating the movement which later became statewide and now promises to be taken up elsewhere. Mrs. Kehrer conducted the first spectacular public demonstration against disease at Anderson, Indiana, last April. Her anti-tuberculosis society was the backbone of the movement. The day's program included a monster parade of school childrel, public officials and floats along the lines of disease prevention. A month later the anti-tuberculosis society at Princeton conducted a similar demonstration.

The idea and its results struck the officers of the Indiana Society for the Prevention of Tuberculosis so forcibly that at their instigation Governor Ralston issued a proclamation urging a state-wide observance of the day, which was set for Friday, October 2. The name "Health Day"

AN OPEN AIR SCHOOL *EN* FLOAT.



A REAL RED CROSS SEAL SANTA CLAUS.

INDIANA ASSOCIATION'S FLOAT.

(Concluded on page 374.)

REFERENDUM CAMPAIGNS FOR COUNTY TUBERCULOSIS HOSPITALS

BY GEORGE J. NELBACH, ASSISTANT SECRETARY, NEW YORK STATE CHARITIES AID ASSOCIATION, NEW YORK.

"Will you vote 'Yes' or 'No' to save lives?"—this question was the slogan which during the four referendum campaigns for appropriations for county tuberculosis hospitals just closed in New York State forced itself upon the attention of the voter from the pages of his newspaper, from the roadside fences and barns, from his morning's mail, from the merchants' windows, from automobiles and delivery wagons, and even from the ministers' sermons. The answer of the people at the polls was a decisive 'Yes,' thus assuring the establishment of four new county hospitals providing approximately 150 beds for the tuberculous.

The amendment to the county law under which the hospital question was referred to the voters was enacted last April, and as this was the first time such a proposition had been submitted to the people in New York State, the result was awaited with great interest. The successful outcome of the election indicates that the referendum is a practical method of securing hospital provision where it is impossible to obtain action through an affirmative vote of the county board of supervisors.

Special attention attaches to the decision in these counties because of the fact that under the law, as amended, the vote at the polls actually makes the appropriation and it is mandatory upon the county authorities to proceed at once to the selection of a site and the erection of the buildings. The form of the question submitted to the voters, as provided in the law, reads as follows: "Shall the county of ..... appropriate the sum of ..... dollars for the establishment of a tuberculosis hospital." The law also says: "If a majority of the voters voting on such proposition shall vote in favor thereof, then such hospital shall be established hereunder and the sum of money named in the said proposition shall be deemed appropriated, ..."

In order to test fully the possibilities of this method of securing hospital provision, a systematic campaign was carried on in the four counties under the direction of Dr. Harvey Dee Brown of the State Charities Aid Association, formerly a member of the staff of the Wisconsin Anti-Tuberculosis Association. The four counties that voted on the question—Chenango, Lewis, Nassau and Suffolk—are all rural counties. In only one of them, Chenango, is there a city, and that city, Norwich, has a population of about 8,000. In two of the counties considerable educational work had been done, resulting in the organization of local tuberculosis committees about two years ago. In the other two very little educational work had been done.

As soon as the boards of supervisors decided to submit the question to the voters, the State Charities Aid Association called a conference in each county and a campaign committee of representative citizens was organized. This committee was usually large, numbering in one instance 50 persons. It was designed to give standing to the movement and to enlist the interest and sympathy of influential people in all parts of the county. The actual work of the campaign was in each case carried on by a smaller executive group ranging from five to seven persons. The successful outcome at the polls is largely due to the personnel of the executive committees.

The county campaign committee in each case was assisted by the State Charities Aid Association, which not only suggested plans and stimulated its work, but also sent to every registered voter a special illustrated county hospital number of its monthly newspaper. A total of 55,000 copies were required for this purpose. The Association also supplied through a newspaper agency illustrated, specially prepared articles in plate form for the county papers.

The State Department of Health furnished a newly published illustrated booklet on county hospitals, a large number of placards, and focused its press service just before election upon the hospital question. It also detailed three visiting nurses to Chenango County for one month and a rural educational worker to Lewis County for the same length of time.

Display advertising in the newspapers was used to a great extent in reaching the voters. These advertisements, nearly half a page in size, were run in practically all the local papers during the two weeks before election. Motion picture films and lantern slides were used to stimulate interest in the many meetings that were held. These meetings were addressed by prominent local speakers and were very effective in securing support. Motion picture houses in the larger towns ran stereopticon slides giving a representation of the hospital ballot properly marked for an affirmative vote and urging the people to vote "Yes" on the question.

In two counties a special, final appeal was made to the voters by mail on the eve of election. In one county 300 muslin banners urging the public to vote for the hospital proposition were put on billboards, barns and fences throughout the county, and an attractive double red cross pennant for automobiles was designed and several hundred of them were used by those owning cars.

Volunteers were enlisted to work at the polls in the various election districts, handing out literature, answering questions, and urging a favorable vote on the proposition. Many of them wore white arm bands having the double red cross emblem on them—a silent suggestion to the voter. The Sunday before election was designated "County Hospital Sunday" and was largely observed in the churches.

The Metropolitan Life Insurance Company was a most valuable ally. Its Welfare Department, under the direction of Dr. Lee K. Frankel, furnished 75,000 copies of a two-page circular, the local agents of the Company distributed these among its policyholders, and a large number of them were given out in the churches and at the polls on election day.

During the week before the vote was taken members of the executive committee, accompanied by representatives of the State Health Department and the State Charities Aid Association, motored to all parts of the four counties, especially to the remote, rural sections, holding informal meetings in the town halls or in front of the postoffices or at other points of public assemblage in the rural districts, answering questions, overcoming opposition, stimulating friends, instructing poll workers and distributing literature.

The expense of the local campaigns averaged about $500 each. This was raised by local subscriptions. In one county about 3,000 letters asking for a one-dollar contribution for the hospital campaign fund were sent out, and most of the expense was met by the returns from these letters. Little difficulty was experienced in getting money after the campaign was once under way, and two of the counties have a substantial balance on hand.

The votes for and against the hospital proposition, together with figures on population, assessed valuation, annual number of tuberculosis deaths, and the amount of money deemed necessary for hospital construction as set forth in the propositions submitted to the voters, are given in the following table:

Name of County	*Sum of Money Voted on*	*Vote for Hospital*	*Vote against Hospital*	*Majority for Hospital*	*Population Census* 1910	*Assessed Valuation* 1912	*Average Annual No. Tub Deaths*
Chenango ..	$20,000	2,506	519	1,987	35,575	$16,720,005	27
Lewis	10,000	2,490	1,777	713	24,849	10,812,384	17
Nassau	100,000	6,798	6,641	157	83,930	97,203,283	78
Suffolk	50,000	8,940	6,800	2,140	96,138	87,051,236	88

In Lewis, Suffolk and Chenango Counties a successful outcome was confidently expected. In Nassau County strong and vigorous opposition was encountered. The politicians were opposed from the outset, partly because they wanted the county to send its patients to hospitals in other parts of the state, partly because they preferred that county spend its money for the construction of good roads rather than for a tuberculosis hospital. The taxes in this county are said to be very high, and a number of taxpayers that one would expect to be interested in hospital provision were opposed to the hospital on account of the increase in taxes. The majority in favor of the hospital proposition would have been larger if the election authorities had permitted all the legal voters to vote on the question. The law gives them that right, but some of the officials in charge at the polls gave the hospital ballots only to taxpayers.

In conclusion, these hospital campaigns show that, if once the question of hospital provision for tuberculosis cases is put up fairly and squarely to the people, and vigorous popular educational measures are taken to bring the matter to their attention in an effort to explain the facts, an affirmative result may be expected. There is a distinct advantage in securing hospitals through this method, in that the campaign for their provision creates toward the new institution a sympathetic attitude which cannot fail to be of much value in promoting the welfare of the institutions from the very start. They will be, in truth, institutions of the people, and they will so regard it. These campaigns were found to offer the best possible opportunity for effective educational work, which gained new significance because of the objective in mind—the vote at the polls.

"MOVIES" IN THE RED CROSS SEAL SALE

Motion pictures have become an annual feature of the Red Cross Christmas Seal Sale. Beginning in 1910, Thomas A. Edison, Inc., have each year put out a picture at the holiday season in co-operation with The National Association for the Study and Prevention of Tuberculosis. All

THE GIVING OF THE RING.

of the films deal with the Red Cross Seal incidentally, but are so constructed that they can be used at any time during the year. They have been widely employed in exhibit work and in special campaigns. The five films of this character are entitled as follows: "The Red Cross Seal" (1910); "The Awakening of John Bond" (1911); "Hope, A Red Cross Seal Story" (1912); "The Price of Human Lives" (1913); and "The Temple of Moloch" (1914).

The plot of this year's picture, "The Temple of Moloch," is laid in a small village, the chief industries of which are some potteries, owned by Harrison Pratt. He also owns a group of dilapidated tenements, in which most of his employes live. Dr. Jordan, health officer of the village, is struck with the prevalence of tuberculosis, and on investigation finds that the unsanitary working conditions in the Pratt potteries, together with the unhealthy state of the tenement homes of the workmen, have most to do with the spread of the disease. He calls the matter to the attention of Pratt, who rebuffs him and tells him it is no use to try to do anything in the matter.

Meanwhile, Dr. Jordan has fallen in love with Eloise, the daughter of Harrison Pratt, and she has become interested in his work, particularly that at the preventorium for children from tuberculous families. Three times Jordan appeals to Pratt, and each time he is rebuffed. Finally, in despair between his love for Eloise and his duty, he exposes the conditions he has discovered through articles in the newspapers, in which he calls the Pratt potteries and tenements a modern "Temple of Moloch," in that they feed young children to the God of Greed. When Eloise, who is ignorant of conditions in the factory, sees the paper she immediately resents what she considers an insult to her father, and returns her engagement ring to Dr. Jordan.

A week later Pratt's daughter and son are found to have tuberculosis. When Eric Swanson, a former employe of Pratt's, who had been discharged because he had contracted "potter's rot" in the mills and was no longer able to work, hears of it,

THE RETURN OF THE RING.

he exults over the calamity, which he views as a sort of personal vengeance. He musters all of his strength and steals away to the Pratt home, where Eloise and her brother are taking the cure for tuberculosis

on the porch, and there denounces Pratt, gloating over him and telling him that his son and daughter were originally infected as young children by Cora Swanson, when she served as nurse-girl for the Pratts several years ago. So struck is Pratt by this denunciation and the graphic story of Swanson, which is affirmed by Dr. Jordan, that he decides to clean up conditions in his potteries and tenements at once.

The story ends with a Christmas scene, in which the engagement ring is returned to the hand of Eloise, and Dr. Jordan receives as a present a liberal check for the employment of visiting nurses, the establishment of open air schools and other anti-tuberculosis agencies in the town.

These pictures may be rented from the various branches of the General Film Co., located in the largest cities of the United States, or they may be purchased from Thomas A. Edison, Inc., Orange, N. J. The rental price is usually about $2 per day, except for this year's film, which is much higher. The purchase price ranges from $80 to $130 per film.

SWANSON GLOATING OVER THE MISFORTUNE OF HIS FORMER EMPLOYER.

Journal of the Outdoor Life

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JAMES ALEXANDER MILLER, M.D., President — LIVINGSTON FARRAND, M.D., Vice-President — PHILIP P. JACOBS, Ph.D., Secretary-Treasurer and Managing Editor

The Aim of this Journal is to be helpful to persons seeking health by an outdoor life, and particularly to disseminate reliable information looking to the prevention and cure of tuberculosis. It should be distinctly understood, however, that the JOURNAL OF THE OUTDOOR LIFE is not intended to supplant personal medical advice. Anyone suffering from pulmonary trouble who is not under the care and guidance of a physician is taking grave chances.

THE LOGIC OF LOCAL HOSPITALS

In a campaign for the prevention of a disease such as tuberculosis, whose fundamental causes are rooted in the very warp and woof of the social fabric, it is obvious that no one specific measure will of itself bring about a radical decline in the death rate, nor provide an immediate or even an eventual millenium. Few, if any, anti-tuberculosis workers now share the optimism expressed by Dr. Newsholme in 1908, when after careful statistical study, he reached the conclusion that local hospitals for advanced cases were practically the only measure which had contributed to the decline in the tuberculosis death rate for the past fifty years.

On the other hand, tuberculosis workers and every fair-thinking individual will realize that the establishment of county or municipal hospitals, as indicated in the suggestive article by Mr. Moree in this number, is a decided benefit to any community. If statistics were not available to prove the benefit of such institutions—and statistics can be provided in abundance—the arguments from the analogy of previous experience in such diseases as leprosy, small-pox, scarlet fever, yellow fever, and others, will show that the segregation of the foci of tuberculous infection is based on sound economic and physical conditions. Of course, it is presumed that tuberculosis is an infectious, communicable disease, the argument of a certain physician, who has recently attacked anti-tuberculosis workers, notwithstanding.

Everyone, who has had any experience with the establishment or the operation of a hospital or a sanatorium for tuberculosis, must be impressed with two facts, first of all, that it is extremely difficult to keep patients in a hospital for advanced cases at the most dangerous period in the course of their disease, namely, for the few months immediately before death; and secondly, that it is well nigh impossible, at the present time, to secure any considerable number of really incipient cases of tuberculosis for admission to our curative institutions. The task of the anti-tuberculosis campaigner seems, therefore, to be not only one that will promote the establishment of local provision for the care of the tuberculous, but also one that will educate the community, both laymen and physicians, to the desirability and the absolutely fundamental necessity for utilizing these institutions to the best possible advantage.

Furthermore, it is a basic truth in the logic of any anti-tuberculosis cam-

paigner, that until those underlying causes which manufacture tuberculosis, such as unsanitary housing and working conditions are removed, a rapid decline in the death rate cannot be expected. On this account the anti-tuberculosis worker has always, and will continue to co-operate with such movements as those which tend to promote good housing, to raise the standard of wages, to secure better sanitary conditions in workshops and factories, and to promote municipal sewage and other public utilities, that will better health conditions.

THE WHITE HOUSE
WASHINGTON

November 2, 1914

My dear Sir:

May I not take this occasion to express to you my deep interest in the work of the National Anti-Tuberculosis Association and my hope that its work is growing in efficiency and extent from year to year? May I not particularly express my interest in the Red Cross Christmas seal whose sale has been the means of raising funds for the work? It seems to me that this is a particularly interesting and sensible way of enabling the people of the country to give this great work their support.

Sincerely yours,

Woodrow Wilson

The Secretary,
National Association for the
Study and Prevention of Tuberculosis,
New York City.

President Wilson has again expressed his interest in the anti-tuberculosis campaign, in the letter reproduced above and also in another previous one to Dr. George M. Kober, President of The National Association for the Study and Prevention of Tuberculosis relative to his approval of the Tuberculosis Day Movement.

MAKING DISEASE PREVENTION POPULAR.

(*Concluded from page 367.*)

adopted at Anderson was changed to "Disease Prevention Day."

Every large city in the state, with two exceptions, and hundreds of towns and villages observed the occasion with parades, mass meetings and lectures in schools and churches. Probably the largest of these demonstrations was held in Indianapolis, where Governor Ralston and visitors from out of the state reviewed a parade three miles long. The streets of the business district were thronged with the largest crowd that has ever turned out on any previous public occasion, according to the local newspapers.

MILES OF HEALTH PARADE.

The results of this state-wide movement, which must be credited to the ani-tuberculosis organizations in Indiana, are numerous and noteworthy. In one high school, where 1,800 pupils have been forced in the past to use ten roller towels daily, the old-fashioned roller towel has been abolished and sanitary towels have been substituted. Merchants selling garbage cans and trash-burners are reporting an enormous increase in their sales. School authorities in many cities are instituting composition contests along the lines of disease prevention. The common drinking cup is growing scarcer with a more than corresponding increase in the sales of sanitary fountains. Societies are being formed to improve housing conditions throughout the state, and in a hundred other ways, the committees in charge feel that the money necessary to bring all this about has been well expended.

The committee in charge of the state-wide campaign to organize local committees expended $650, most of which was used in salaries to stenographers, who sent out daily hundreds of letters to mayors, school superintendents, ministers, club leaders, commercial organizations, etc.

THE WHAT, HOW AND WHY OF A COUNTY HOSPITAL.

(*Concluded from page 365.*)

her physician that she, too, had the disease with which she had just had such intimate, terrible contact.

Her husband's illness had eaten up their slender savings, so that when she was stricken down, the widow, together with her three children, became charges on the town—paupers. In a year, the widow was placed beside her husband in the village cemetery, and the little family was broken up.

There is a touching appeal here and a moving heart interest. If the county had had a hospital, that father would have had a chance for life. At least he could have saved his wife the burden of his care, and her infection might have been avoided. In either

event, if he had lived, or if his wife had lived, the family in all probability would not have become town charges.

But there is a practical taxpayer's interest also in this story. If the county had had a hospital, the effect of this man's illness on the tax levy would have been as follows:

One year's care in the county hospital at $10.00 per week	$520.00
Less patient's contribution to his own support	200.00
Balance paid by county	$320.00

There was no hospital, however, so the father and mother died, and this is the way the public account stands:

Care of father	nothing
Mother's doctor's bills paid by town.	$50.00
Support of family during mother's illness	250.00
Funeral expenses of mother	25.00
Care of two-year-old child in orphan asylum for twelve years	1,800.00
Care of four-year-old child in orphan asylum for ten years	1,500.00
Care of five-year-old child in orphan asylum for nine years	1,350.00
Total	$4,975.00

In other words, that county by saving $320.00, the theoretical cost of caring for the father, will be the ultimate loser by $4,655 (the cost of caring for the mother and her orphans minus the theoretical cost to the county if the father had received care). Yet even this financial aspect to the problem was a less compelling argument with the voters than the suffering and sorrow of uncared for tuberculosis that is not cared for.

A TUBERCULOSIS QUESTION BOX

Suitable questions will be answered on this page each month. No treatment will be prescribed nor medical advice given for specific cases. Such advice can be given intelligently only by the patient's own physician. Address all communications to "Question Box Editor," JOURNAL OF THE OUTDOOR LIFE, 289 Fourth Avenue, New York City. Please write only on one side of paper.

TO THE EDITOR:

1. What are the various ways a lung heals?
2. What causes mixed infection and what does it indicate in T. B.? Is it present in a normal person?
3. What causes glands in neck to become enlarged and painful when T. B. is quiescent in lungs?
4. What is the best treatment for T. B. bowels, and do patients ever recover if treatment is begun early?
5. How long an interval is necessary from a closed case to arrested case and from arrested case to a cure?
6. What determines the stage of the disease? Do third stage patients recover?
7. After there is involvement in lung and the area has healed, is that area ever of use again and how soon after healed?

A Reader.

1. In general the lung heals by the formation of scar tissue around the focus of the disease which gradually crowds out the diseased area. Sometimes this tissue becomes calcareous from the deposit of lime salts from the blood.

2. Mixed infection is due to the addition of some other germ to the tuberculous infection. It adds to the severity of the disease. The term has no application to normal people.

3. Swelling of the glands of the neck are often due to infection through the tonsils. Such swelling may or may not be tuberculous.

The question of the activity of the disease in the lungs has no direct bearing.

4. We do not give any specific advice for treatment in these columns.

5 and 6. The answers to these questions will be found in the official classification of the National Association, which has been printed in these columns. See page 343, issue of November, 1913. Third stage cases recover in the sense of being able to resume normal life not infrequently, but this does not mean that their lungs return to normal.

7. This depends upon the extent and nature of the disease. It has no practical bearing, for if a lung heals and the patient appears well, there is always plenty of lung tissue to carry on the necessary functions. Sometimes considerable damage of this sort leaves a permanent shortness of breath.

TO THE EDITOR:

1. What is the meaning of "far advanced cases"? Does it mean that both lungs have become affected; also when a person gets short of breath and no wind, can they be cured?

2. Kindly state in your valuable little book, as to whether Caldwell or Summit, N. J., are equally as good as Liberty, N. Y., or any other place. We would like to locate nearer New York, where the air is dry. Have been told Caldwell, N. J., is a very excellent locality for a lung patient.

Kindly advise a place which your experience thinks advisable.

A Subscriber.

1. We have answered this question in our reply to "A Reader."

2. Both of the places you mention are well thought of for cases of tuberculosis who wish to be near New York.

To THE EDITOR:

1. Kindly state the best and most exhaustive medical treatise or treatises on bronchitis; and also on secondary infections in tuberculosis.

2. What can you say, from a climatic and from a general standpoint, of Wyoming or Montana as places of residence for an arrested case of tuberculosis? I am looking for a climate bearable all the year round in a prosperous community. My susceptibility to bronchitis has, in the East, been my chief failing.

Atlantic Seaboard.

1. There are no specific treatises on the subject you mention. Very good article on this subject are contained in "Osler's System of Medicine" and "Kleb's Tuberculosis."

2. Many cases or arrested tuberculosis with or without bronchitis do well in Wyoming and Montana. In general the climate is drier than in the east and the winters quite cold. While from a climatic point of view, perhaps not quite so good as the southwest, nevertheless these two states have a very good climate for such cases.

To THE EDITOR:

1. (a) Is bronchitis ever absolutely cured (that is, when there has been no T. B. bacilli ever found in the sputum and the patient is otherwise well)? (b) Is it usually a stubborn disease to get rid of? Can you recommend any book on this form of chest trouble?

2. Have you ever heard of the Burney Yeo inhaler and do you consider it of any benefit in catarrahal conditions of the nose and throat?

3. Could the wearing of an inhaler with a solution of creasote carbolic, formalin and a few other things in that line possibly cure gangerine of the lungs? I have heard it claimed to do so.

I. J., Arizona.

1. When the condition is not too advanced, it may be cured. Sometimes surgery has been employed with advantage. It is a very stubborn disease and absolute cure is extremely difficult.

2 and 3. Yes, such inhalers with the use of such solutions as you mention are often helpful in diminishing the amount of catarrh and the consequent cough and expectoration. It must be looked upon, however, as a procedure to alleviate symptoms and not as a cure in any sense.

To THE EDITOR:

Where financial considerations do not apply

1. How long are patients in the best sanatoria advised to stay to continue the cure after they have reached the arrested stage?

2. What is the present opinion of the best authorities as to taking exercise before normal temperature has been attained?

3. May patients over 40 who have reached the "apparently cured" stage reasonably expect, under favorable conditions and with constant and intelligent care, to live out their life expectation?

4. Do any of the reliable insurance companies insure the tuberculous under any conditions at all?

5. You say in a recent issue, people in normal health have some excess temperature in hot weather; then how can the "apparently cured" stage be reached by the tubercular patient except by going to a cool climate in summer?

R. E. M.

1. There is no absolute rule. It varies with every case.

2. As a rule, exercise is forbidden while there is any abnormal rise of temperature. There are exceptions to this rule, but they are not numerous.

3 and 4. The chances are fairly good, but nevertheless it must be born in mind that absolute cure in tuberculosis is a very difficult thing. For this reason life insurance companies are usually willing to insure such cases, but as special risks with higher premiums.

5. The question of body temperature in classifying disease is important only when compared with the normal. In apparently cured cases there is no reason why the term is not justified, when only such changes of temperature as are normal occur. In classified cases physicians have to take into consideration these normal variations and decide whether or not in the individual case the conditions vary from the normal or not.

To THE EDITOR:

1. Would an x-ray picture reveal any condition of the lungs that could not possibly be detected by percussion taps, the stethoscope or other like methods usually employed to determine their condition? If so, what might it reveal?

2. What can be said for tuberculin treatment by inunction? Is it accepted as an efficient method by recognized authorities or is it still only in an experimental stage?

F. O. S.

1. Sometimes, but as a rule a skilful physician's examination of the chest will closely

check up any findings of the x-ray. Sometimes in very early cases the physical signs show before the x-ray. In other cases, particularly where the disease is more advanced, the x-ray shows more disease than is indicated by the physical signs. In other words, the two methods of examination are often used in conjunction in order to arrive at an accurate opinion.

2. This method is not usually employed and is open to criticism because of the difficulty of regulating the amount of tuberculin absorbed through the skin.

To the Editor:

1. Will any harm result to child if mother comes in contact with tuberculosis patients during pregnancy?

2. Is one more susceptible to the disease at that time—and is greater care necessary to prevent infection?

Subscriber, Texas.

1. Not from simple contact without infection to mother resulting.

2. All reasonable precautions should be taken at this time as well as at others, but the susceptibility to infection is probably no greater. In fact, during pregnancy it has been thought that women are somewhat less susceptible to various infections, but if this is true, there is no very definite evidence to support it.

To the Editor:

1. What is the cause of a tubercular patient having fever?

2. Why do incipient cases often have high temperature while some far advanced cases have little or none?

3. What is the smallest proportion of carbolic acid to water, that is sure to kill tubercle bacilli?

4. Are either milk or eggs or the two combined, hard on the stomach?

5. I have two acquaintances taking the same amount of exercise who raise about the same amount of sputum; one raises practically all in the morning upon arising, and the other raises a small amount frequently during the 24 hours. What significance would you attach to the fact in regard to the condition of their lungs?

6. What is the difference between disinfectant and an antiseptic?

7. Will concentrated lye kill tubercle bacilli?

N. Mex., Subscriber.

1. Fever is due to the absorption by the blood of the poison from the tuberculous process which acts upon the heat centre in the brain. This is the cause of fever in any infection.

2. This depends upon the degree of toxemia or, in other words, the amount of poison absorbed. Some advanced cases absorb very little poison and some early cases a great deal.

3. Carbolic acid is not sure to kill tubercle bacilli in the sputum in any strength because of the fact that the albuminous matter in the sputum is coagulated, and thus the germs are protected from the action of the acid. Tubercle bacilli when not contained in sputum are easily killed by very weak solutions of carbolic acid, less than 1 per cent.

4. Many patients are unable to take milk and eggs, sometimes it is one and sometimes it is the other which disagrees. Of the two, the eggs are more liable to cause digestive disturbance.

5. We cannot hazard any opinion in reply to this question.

6. "Disinfection" is a term applied to removing infection, that is, destroying germs which already are present. "Antisepsis" is a term employed for procedures to prevent the access of germs, that is, to prevent infection. The agents used for both purposes are often the same.

7. Yes.

To the Editor:

Is it possible for one who has pulmonary tuberculosis to have no distinct rales in the lungs?

2. If no distinct rales are heard, why is it that I expectorate an ounce daily?

3. What is the normal blood pressure?

V. M. D.

1. Yes, but as a rule this means either that the condition is a very early one or that a more advanced condition is improving.

2. The expectoration may come from elsewhere than the lungs.

3. Systolic blood pressure normally varies between 120 and 140 m. m. in an adult.

To the Editor:

1. Is riding in automobiles good for tuberculosis patients?

2. Is there any good or harm in inhaling spirits of turpentine by tuberculosis patients?

W. P. C.

1. It depends upon the case. In any event, long rides should be avoided as well as exposure to dust. It is also important to avoid rough roads and fast driving. In some cases all automobile riding is undesirable.

2. Such inhalations have no direct effect upon the disease itself.

To the Editor:

Is it wise for a patient, who is in an advanced stage of tuberculosis and subject to tonsolitis and rheumatism, to be subjected to outdoor treatment, when it is twenty-five below zero?

A. S. M., Canada.

It is often desirable to modify the treatment in such cases. Just what should be done for the individual case must be decided by the attending physician.

GLEANINGS FROM TUBERCULOSIS LITERATURE

Visiting Nurse Manual.*

We hear much about the necessity of establishing standards of work in these days of 100 per cent. efficiency. Rarely do we find a more concise and definite statement of the standards in a given line of work or a more practical exposition of the ways and means of fulfilling these standards than in the Visiting Nurse Manual, prepared by Miss Edna L. Foley, R.N., Superintendent of the Visiting Nurse Association of Chicago. Designed originally for the members of her staff in Chicago, it has been amplified to meet the needs of all public health nurses, and is intended to serve as a guide to new nurses and also as a manual for all staff nurses.

While particular references are made to Chicago institutions and societies, visiting nurses all over the country will find the Manual an ever present help in time of need, because of the wide variety of nursing emergencies which are touched upon, because of its simple, direct explanation of principles and methods of visiting nursing, and last, but not least, because of its convenient size and make-up, which renders it suitable for carrying in the overcoat pocket or nursing bag.

The details of the nurse's uniform and equipment and the planning of the daily routine of work are noted. Emphasis is laid upon securing the necessary co-operation of physicians and a list is given of "standing orders" which have the approval of the Chicago Medical Society. Under the general topic of Nursing Service are detailed instructions regarding nursing care, fees and gifts, relief and co-operation, emergencies, free medical service, maternities, surgical and medical nursing, the nursing of chronics, children and infants, the extermination of flies, insects and vermin and the scheme of insurance and industrial nursing as carried on in Chicago in connection with various industrial plants and the Metropolitan Life Insurance Company. A further chapter is devoted to the organization of work through a system of sub-stations and the detail of the clerical work required. A final chapter deals with the family budget, especial attention being given to the composition of a cheap dietary and the necessity for instructing the families under care regarding economy in selection of food materials.

Not only the individual nurse, but also the supervisor of a large nursing staff and the executive of a visiting nursing association will find in this Manual invaluable suggestions for the development and standardization of the work in other communities.

F. Elisabeth Crowell.

* Visiting Nurse Manual, by Edna L. Foley, R. N. Published by The Visiting Nurse Association, 104 S. Michigan Ave., Chicago. Price, 25c.; postpaid, 30c.

Nurses' Papers on Tuberculosis.*

The Nurses' Study Circle of the Dispensary Department of the Chicago Municipal Sanitarium has made a very real contribution to the somewhat meagre supply of literature available for tuberculosis nurses in the collection of papers read at its meetings during the past year, which has just been published in pamphlet form.

With one exception these papers have been written by nurses for nurses and include the following topics:

Historical Notes on Tuberculosis; Visiting Tuberculosis Nursing in Various Cities of the United States; Some Points in the Nursing Care of the Advanced Consumptive; and Open Air Schools in This Country and Abroad.

The exception noted is the final article by Dr. Theodore B. Sachs, President of the Board of Directors of the Sanitarium, on "Notes on Tuberculin for Nurses," which enumerates the varieties of tuberculin and the methods of preparation, gives the theories of tuberculin reaction and comments on various tuberculin tests.

Aside from the practical value of the suggestions contained in these papers to nurses engaged in tuberculosis work, they should stimulate the formation of similar study circles by groups of nurses elsewhere. As Dr. Sachs says in the published foreword, "The organization of a tuberculosis study circle among the nurses, calling forth their best efforts in getting information on various phases of tuberculosis for presentation to their co-workers in an interesting manner, has no doubt stimulated the progress of our entire nursing force."

It is interesting to note in this connection that the nurses chosen to present these papers received every assistance from the general office of the sanitarium, having access to the library as well as clerical assistance in procuring all necessary information through correspondence with various organizations and institutions, both in Chicago and in other cities.

F. Elisabeth Crowell.

* Copies of this book may be secured for 10c each, postpaid, from the office of the Chicago Municipal Tuberculosis Sanitarium, 105 W. Monroe St., Chicago.

Drug Intoxication.

In Public Health Reports for October 16th, Dr. M. I. Wilbert, Technical Assistant, Division of Pharmacology of the Hygienic Laboratory of the United States Public Health Service, contributes an interesting article on "Drug Intoxication, an Economic Waste and a Menace to Public Health." Dr. Wilbert shows by carefully

compiled statistics that while the population of the United States from 1880 to 1910 increased approximately 83.3, the increase in the value of patent medicines and related products was 740.5. The cost of the material to the manufacturers was seven times greater in 1909 than in 1879 and the value added by the manufacturer was eleven times greater in 1909 than in 1879.

Dr. Wilbert says in this connection, "It has been conservatively estimated that the people of the United States expend annually upward of $500,000,000 for medicines, and that by far the greater bulk of the medicine purchased is consumed haphazardly and not under the direct supervision of experts whose knowledge would tend to prevent harmful intoxication and untoward results from the ingestion of potent and in many instances dangerously harmful preparations." He points out the particularly dangerous effects resulting from the promiscuous and continued use of such drugs as quinine, the coal tar combinations and various other medicines. He concludes that the amount of money spent annually for drugs and medicines in this country is out of all proportion to the real needs or requirements of the people and to this extent, at least, the use of medicines may be considered an economic waste. He attributes the rapid increase in mortality from such degenerative diseases as those of the kidney, heart and blood vessels during the last thirty years to a large extent to this wide use of drugs.

Chicago Institute Bulletins.

Among the important bulletins recently put out by the Chicago Tuberculosis Institute, none has been more valuable than the October number, Series 2, No. 7, which deals with exhibits. The bulletin contains a description of the Chicago exhibit and information concerning the methods employed in the very successful city campaign of that city, as well as some additional information of value.

Another important bulletin is one entitled "The Cow Question," which was issued on October 15th for use particularly as a brief before the legislature to secure and retain proper legislation on bovine tuberculosis.

Copies of these bulletins may be obtained from the office of the Chicago Tuberculosis Institute, 8 South Dearborn Street.

July and August Numbers of "Tuberculosis."

The July and August number of "Tuberculosis" (Berlin) have come to hand, in spite of the war. The July number has an interesting article in the relation between the so-called types of the tubercle bacillus by Prof. A. Eber of Leipzig, in which he contends with Kossel, Weber and Heuss that the bovine and human types of the tubercle bacillus are not really distinct types at all, but are local varieties of one and the same type of bacillus, with comparatively valuable properties. A timely article in the August number by Dr. Best from Darmstadt deals with compulsory disinfection of dwellings, workshops, etc., and the reporting of living cases of tuberculosis.

War and Tuberculosis.

The "Scientific American," in a recent issue, quotes Dr. J. Kollavits from the Vienna "Clinical Weekly" to illustrate the point that in addition to the slaughter of lead, the war will for years after it is closed, take its toll of death from tuberculosis and other diseases, because of the hardships and exertions of campaigning which weaken permanently the bodily resistances. He says: "These men will soon become ill, retire from the fighting line with 'catarrh of the lungs,' and frequently there will be a failure to comprehend what is at the basis of the apparently harmless symptoms. The poorest, who need fresh air as much as daily bread, will lie ill at home, in the dust of villages or behind closed windows of hospitals in big cities, where their condition will not naturally improve. It would be more effective treatment to place our sick heroes amid green woods or on sunny mountains, and I believe this would not be so difficult of accomplishment as at first thought it may seem.

"By the beginning of September most of the summer resorts in the mountains are closed and remain empty until the next summer. It would be a remarkably patriotic deed if the directors of these enterprises would turn their empty buildings over to the Military Bureau of Sanitation for this purpose. Thorough disinfection later would leave the next summer's guests nothing to fear. Specially desirable would be those places where one large hotel remains open, with the many smaller ones closed."

Knopf Essay New Translations.

The seventh American edition of Dr. S. A. Knopf's prize essay, "Tuberculosis as a Disease of the Masses and How to Combat It," has been translated into Bohemian by Dr. S. Breitenfeld of New York. This translation appeared first in serial form in the Bohemian daily, "New Yorske Listy," and has now been printed in book form by the publishers of this paper, who are located on Second Avenue, between 71st and 72d Streets, New York. The book is especially intended for the many Bohemian colonies throughout the United States.

The same latest American edition is now being translated into Spanish by Dr. Jesus E. Monjaras of Mexico City, which makes the third edition in Spanish, two having appeared in previous years.

Dr. A. Lankester, the Government ap-

pointee of the Indian Research Fund Association (Special Tuberculosis Enquiry), Cranleigh, Simla, is now translating the essay into a second East India dialect—one Hindu edition having appeared last year. This makes the 30th translation of the essay since its original appearance in German some ten years ago.*

NOTES AND NEWS

Pennants to Be Awarded for Best Red Cross Seal Sale.

Pennants or banners will be given by the American Red Cross and The National Association for the Study and Prevention of Tuberculosis to the seven counties, cities, town and villages in the United States selling the largest number of Red Cross Christmas Seals per capita before January 1st, according to an announcement from headquarters in New York today.

In order to make the competition even in all parts of the country, the counties, cities and towns have been grouped according to their population in 1910 into seven classes, as follows: From 500 to 2,000; from 2,000 to 8,000; from 8,000 to 2,500; from 25,000 to 50,000; from 50,000 to 150,000; 150,000 to 500,000; and over 500,000. A specially prepared pennant will be given to the county, city, town or village in each class anywhere in the United States selling the largest number of seals per inhabitants.

Last year Cody, Wyoming, was among the largest buyers per capita, selling over 22,000 with a population of 1,200. Some cities in New York, Wisconsin, and Pennsylvania, Rhode Island and other states sold from three to six per resident. The National Association for the Study and Prevention of Tuberculosis, which is carrying on the promotion of the sale, considers that any city of 10,000 to 100,000 population ought to sell at three cents' worth of seals per inhabitant.

All of the proceeds from the sale of Red Cross Seals, except the expenses of the sale, go to fight tuberculosis in the community, state, city or town where the Seals are sold.

One in Every Ten Church Deaths from Tuberculosis.

In an effort to ascertain how serious a problem tuberculosis is to the average church congregation of the United States, The National Association for the Study and Prevention of Tuberculosis publishes today a report which shows that in nearly 3,000 churches in 37 different states one funeral in ten is due to this single disease.

Through a questionnaire sent out all over the country, 2,852 clergymen, representing 1,603,300 communicants or parishioners, gave replies telling at how many funerals they officiated for the year ending August 31, 1914; how many of these were due to tuberculosis; how many living cases of tuberculosis they now have in their parishes, and how many communicants or parishioners. There were 36,798 deaths from all causes reported, showing a death rate of 229.4 per 10,000 population, which is considerably higher than the corresponding rate for the entire country, 138.7 in 1912. This high death rate is probably due to the fact that pastors of churches officiate at many funerals of others than members or communicants, while their membership reports are taken from actual records.

As indicating the extent of the tuberculosis problem in the average church the figures show that 10.3 per cent. of all the funerals reported were caused by tuberculosis, and that, in addition to the 3,794 deaths from this disease, the ministers had 4,254 living cases now under their pastoral supervision. In one year, therefore, the 2,852 churches were caring for 8,048 cases of tuberculosis, or an average of nearly three for each congregation. The average size of the congregations was 56, which would indicate that there is a case of tuberculosis developing each year for every twenty church members.

Newspaper Stories of Value.

Last spring the Detroit "News," under the direction of Mr. Pipp, the editor, entered into a campaign in coöperation with the local anti-tuberculosis society for the establishment of a tuberculosis hospital and the improvement of conditions making for the prevention of this disease. Seldom, if ever in the history of newspaper publicity, has any paper given so generously and so appreciatively of its space to the anti-tuberculosis campaign. Every day for several months, special stories were run dealing with tuberculosis, and in addition a daily newspaper story telling of the progress of the campaign was also published. As a result of this remarkable campaign, which reached practically every citizen of the city, the Council of Detroit has appropriated over $400,000 for a special city institution, the existing department of health hospital has been greatly strengthened, and over $50,000 was raised for private anti-tuberculosis work. This is in addition to the education and the general stimulus to the anti-tuberculosis movement provided by the campaign.

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* Copies of this publication in any language may be ordered through the **Journal of the Outdoor Life.** The price of the English edition (125 pp., paper), is 25 cents postpaid. Prices vary on the foreign editions and cannot be quoted here.

Through the generosity of Mr. Pipp, this series of unusually helpful publicity articles, prepared by newspaper experts in consultation with the best medical authorities in Detroit, have been made available for general use throughout the United States. They are not copyrighted and anyone may publish them who wishes to, either in series or individually. They may be readily adapted to the local needs of almost any city. Bound series of the articles, suitable for distribution to the public press, may be obtained from the office of the Detroit Society for the Study and Prevention of Tuberculosis, 512 Kresge Building, Detroit, Mich. It is suggested that those who write for such series send 10 cents for postage.

"Health, Tuberculosis, and Open Air R. R."

The route of a case of tuberculosis, graphically portrayed by a fully equipped electric railroad, is one of the unique exhibits of the Wisconsin Anti-Tuberculosis Association recently prepared. The railroad is known as the "Health, Tuberculosis, and Open Air" Railroad, and portrays the manner in which a sufferer can return to health by the open air route, or continue over the through line through the "tunnel of death, to mystery mountain."

The terminal station of this road is the station of "Health," from which all trains leave, both early and late. To signify the number of cases developing daily in the United States there is a sign post at this station announcing 600 trains daily, and another bulletin reads, "One way only. Return privileges over open air route."

After leaving the station of "Health," the trains first come to the trestle "Fever Lake," this indicating the first symptom in the development of a case of tuberculosis. The train next goes over "Coughing River," on a railroad bridge, correct even to the girders and supports. The first station is "Loss-of-Weight City," and from there the line progresses to "Open Air Junction." Here, if the train is set on the "open air line" it returns to the station of "Health," but if this route is not taken, the train goes to "Mystery Mountain."

This unique exhibit was developed by Theodore J. Werle, Wisconsin Anti-Tuberculosis Association's lecturer, and superintendent of exhibits, aided by R. K. Winning, an instructor in the state university's extension division. It was first shown in connection with the Association's recent successful annual meeting.

Atlanta's Training Class.

The Atlanta Anti-Tuberculosis Association has started a training class for social workers, which has in it the germs of a future school for social workers.

Commenting on the scope and possibility of the work, Miss Rosa Lowe, the Secretary of the Association, says: "For the woman splendidly endowed by nature, for the nurse fully equipped by training, there is still a demand for a successful social worker. For this reason the training class has been inaugurated. Its object is that the nurse be trained to obtain a familiarity with the sick-poor in their homes: their habits of thinking and of living; their personal hygiene, the way they cook their food, clean their houses, open their windows, order their sleeping arrangements, and many more valuable points too numerous to mention. The nurse must also be familiar with the general environment of the poor, such as housing conditions, rents, local conditions, etc.

"In the training class medical lectures have been arranged to teach the most common diseases, which are associated with tuberculosis—out of which tuberculosis frequently develops, or which may be complication of the disease. Social lectures are given by Atlanta's most prominent leaders who are actively engaged in social work and are enabled to give practical lessons to the training class. During the past year the Anti-Tuberculosis Association of Atlanta was enabled to assist in the extension of the fight against tuberculosis in the State of Georgia, by giving the social training to a nurse, Mrs. Turman. Mrs. Turman was thus enabled to take charge of the work at Macon, Ga., where she has built up a wonderful clinic. This successful worker has the coöperation of the Mayor, who has provided clinical rooms for her in the City Hall. She has enlisted the most prominent medical men of Macon in behalf of this work, and they are giving their services to her free of charge in caring for these unfortunates. She personally has succeeded in obtaining the coöperation of the Red Cross Association, being herself at the head of the Red Cross Nurses in Georgia. Mrs. Turman is also coöperating with the Metropolitan Life Insurance Co. of Macon. The Anti-Tuberculosis Association feels very proud of the work which Mrs. Turman is doing, as she is the first nurse instructed in social work by this association who has taken up her duties in the state of Georgia.

Tuberculosis in Rural New Jersey.

In a recent campaign for a county hospital in Monmouth County, New Jersey, Miss G. L. Button, Secretary of the local association, presented the following facts to show mortality from tuberculosis in rural districts:

"In the village of Everett, as it stood five years ago, every house had seen a death from tuberculosis. A man of national importance in the tuberculosis movement, who knows conditions all over the country, tells me he had never heard of such a community before. It seems that in this

country village Monmouth County possesses a record-breaker.

"The terrible facts about Everett are especially interesting because of the belief of many people that country districts in general, and the farming regions of Monmouth County in particular, are relatively free from consumption. That belief is ill founded.

"Everett is a country village of about fifty houses, with two hundred people. Six houses have been built within the last five years, and in these, so far as we have heard, there has been no tuberculosis. But in every other house in the village, there has been at some time at least one death from that disease. In the last twenty years the little village has seen twenty-three deaths from tuberculosis. Fourteen of these people were young men who died between eighteen and thirty-five."

Michigan State Meeting.

Dr. Victor C. Vaughan, President of the American Medical Association, in an address given before the delegates of the eighth annual meeting of the Michigan Association for the Prevention and Relief of Tuberculosis in Muskegon, inspired his hearers by a prediction that if tuberculosis is to be conquered, the Lake States may

expect to be the first section rid of the disease, as these states show the greatest decrease in the death rate. The object of one resolution adopted was to appoint a Committee, of which Dr. J. H. Kellogg of Battle Creek should be Chairman, to raise $50,000 to be expended by a joint committee from the State Board of Health and from the Michigan Anti-Tuberculosis Association, with the object of locating living cases as well as the deaths from tuberculosis, and to do educational work in Michigan.

The by-laws of the Association's consti-

tution were changed to provide for the affiliation with the Michigan State Grange and the State Federation of Women's Clubs, which two bodies will have much to do during the coming year with the educational work of the Association and with the Red Cross Christmas Seal sale.

Miss Mary C. Nelson, the state visiting nurse, gave an interesting account of her work. Dr. A. F. Fischer of Hancock was elected President and Miss Carol F. Walter of Ann Arbor, Secretary. Grand Rapids was chosen as the next place of meeting.

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VOLUME XI

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The Hendricks Sanatorium

EL PASO, TEXAS

For the Treatment of All Forms of Tuberculosis

CHARLES M. HENDRICKS
Medical Director

ONE of the most modern and thoroughly equipped private institutions in the world, for the scientific treatment of all forms of tuberculosis. Located in the suburbs of one of the largest and most progressive cities in the Southwest. Adjoining historic Fort Bliss. Facing the Franklin Range of Mountains. Overlooking the city and the beautiful Rio Grande Valley. **MODERATE ALTITUDE** (4000 feet). **EXCELLENT CLIMATE** the year around. (See U. S. Government reports.) Building **FIREPROOF CONSTRUCTION.** Spanish architecture, beautiful patio, large and comfortable sun parlors and spacious roof gardens. Each room has **INDIVIDUAL SLEEPING PORCHES, PRIVATE BATH, STEAM HEAT, ELECTRIC LIGHTS, RUNNING HOT AND COLD WATER, NURSE'S SIGNAL SYSTEM,** and all other modern conveniences. **PURE WATER** from our own 500-foot well. Equipment includes a refrigerating and ice plant and a specially appointed kitchen. The medical department is complete, with treatment rooms, laboratory and special X-Ray apparatus for tissue work. This institution will be open January 1st, 1915. **MAKE RESERVATIONS NOW.** For further information, address,

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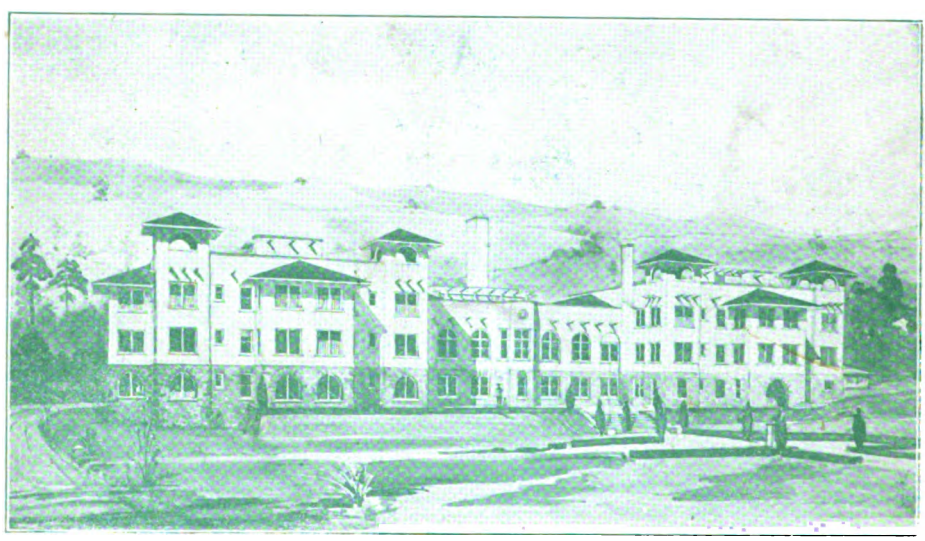
FOR THE

Treatment of Tuberculosis



Ideal climate the year around. New building opened October 1st. Each apartment has individual corner sleeping porch. Entire building is covered with roof garden, commanding a wonderful view of the Pike's Peak Region. Private baths.

This building represents the latest in sanatorium construction and equipment. We are prepared not only to offer our patients the best in the way of climatic conditions, but also to give them scientific care and pleasant surroundings.

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GERALD B. WEBB and GEORGE BURTON GILBERT - *Consultants*
MARY L. WHITNEY, R. N. - - - - *Superintendent*

For full particulars address the Physician in Chief.